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JULY 1986 NUMBER 215

MONTHLY REPORT

ON THE NUCLEAR FUEL MARKET

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HEADQUARTERS

Three Park Central
1515 Arapahoe Street
Suite 1045
Denver, Colorado 80202
Telephone: (303) 893-4015
Telecopy: (303) 825-4821
Telex: 450202 (NUEXCO DVR)

Chairman of the Board of Partners
Oren L. Benton

Vice Chairman of the Board of Partners
Samuel R. Freeman

EASTERN UNITED STATES

100 Prospect Street
Century Plaza South
Stamford, Connecticut 06901
Telephone: (203) 323-1999
Telecopy: (203) 325-1483
Telex: 4750124 (NUEXCO C)

Managing Broker
Earl E. Hoellen, Jr.

WESTERN UNITED STATES

Building 3, Suite 290
3000 Sand Hill Road
Menlo Park, California 94025
Telephone: (415) 854-1510
Telecopy: (415) 854-2115
Telex: 470674 (NUEXCO UI)

Managing Broker
George White, Jr.

EUROPE

13 chemin du Levant
01210 Ferney-Voltaire
France
Telephone: (33-50) 428035
Telecopy: (33-50) 428526
Telex: 385288 (NUEXCO F)

Managing Broker
James E. Vaughan

REGIONAL MANAGING BROKERS

AFRICA
James E. Vaughan

AUSTRALIA
George White, Jr.

CANADA
Wayne D. Fowler
(303) 893-4015

FAR EAST
Christian C. Guitton
(415) 854-1510

MEXICO AND SOUTH AMERICA
Earl E. Hoellen, Jr.

(See inside back cover for list of Representatives and Consultants)

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MONTHLY REPORT ON THE NUCLEAR FUEL MARKET

July 1986 No. 215

GEORGE WHITE, JR., *EDITOR* CLARK M. BEYER, *ASSOCIATE EDITOR*

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To Our Readers

Nuexco is pleased to announce that **Mr. Donald P. Ebright** will again be associated with Nuexco effective August 1, 1986. Mr. Ebright worked extensively with Nuexco prior to 1982 as an overseas representative. Mr. Ebright will become a Vice-President with Concord-Nuexco International Corporation, a parent corporation to Nuexco, and will be involved in a broad range of activities for that company as well as for Nuexco. He will be based in Zurich, Switzerland, and from such Concord-Nuexco office will augment Nuexco's Ferney-Voltaire office in its European operations. Mr. Ebright was employed at General Electric in marketing responsibilities for 27 years in the United States, the Far East and Europe prior to 1974, and has resided in Europe for the last 18 years. Mr. Ebright brings to Nuexco a great deal of experience in the nuclear industry. He can be reached at the following address:

Don Ebright
Transcommerce International AG
135 Zürichstrasse
CH-8700 Kusnacht, Switzerland
Telephone: (41-01) 910-8977
Telecopy: (41-01) 910-6672
Telex: 58877 (COMAG)

* * *

We would also like to announce that **Mr. Fredrick J. Boyne** has assumed the position of Vice President and General Counsel of Nuexco. Mr. Boyne was previously with Getty Oil Company for 24 years and most recently served that firm as Associate General Counsel. He received his Juris Doctor from the University of Minnesota. Mr. Boyne's extensive experience in natural resources, including uranium mining, as well as his broad experience in a number of other businesses will serve Nuexco and other business activities of Nuexco's parent entity, Concord-Nuexco International Corporation.

* * *

Oratom Consulting Pty. Ltd., Nuexco's representative in Australia for the past six years, ceased its operations on June 30, 1986. Peter Stork, Oratom's principal, who was formerly associated with both Queensland Mines Ltd. and Pancontinental Mining Ltd., has become associated with and will lead the Australian branch of a worldwide Christian organization. We join Peter's many friends in the industry in wishing him well in the future.

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NATURAL URANIUM AND SECONDARY MARKET CONVERSION

(All data as of June 30, 1986)

The **Exchange Value** is **$17.00** per pound U_3O_8, unchanged since last month. **Active supply** of natural uranium (concentrates and UF_6) for spot or near-term delivery totals **4,050,000** pounds U_3O_8 equivalent, down 165 thousand pounds since last month. The corresponding figure for **active demand** is **2,050,000** pounds, up 1.1 million pounds. The spot and near-term **supply-demand ratio** fell to **2.0:1.**

The *Current Market Data* section of this Report lists four natural uranium sales, involving approximately 600 thousand pounds equivalent U_3O_8. All of the transactions involved natural UF_6 for near-term delivery, and all met the criteria for inclusion in the current Transaction Value calculation.

The **Transaction Value** is **$17.20** per pound U_3O_8, up $0.05 since last month. The calculation extends over a 3-month period and includes 14 transactions involving 2.2 million pounds equivalent U_3O_8.

The **UF_6 Value** is **$48.25** per kilogram U in UF_6, unchanged since last month.

The **Conversion Value** is **$1.80** per pound U in UF_6, unchanged since last month. Active supply of secondary market conversion services for delivery within three years totals 1.7 million pounds U as UF_6. Active demand totals 565 thousand pounds U as UF_6. No secondary market conversion transactions are reported.

The **Loan Rate** is **4 percent** per annum, unchanged.

* * *

The Exchange and UF_6 Values were unchanged as of the end of June. Several lots of natural uranium remained available for sale around the $17.00 per pound U_3O_8 level, and several transactions were completed or in negotiation as of the end of the month. In recent months there has been consistent buying activity (for generally moderate quantities) in the uranium market, and the amount of material available at spot price levels has exceeded demand. Nevertheless, sellers have refrained from drastic price cutting, and prices have stabilized near the $17.00 level. The speculation and uncertainty stemming from the District Court order requiring DOE to limit the enrichment of foreign-origin uranium for use in US reactors may in time have a substantial market impact, but as of the end of June, it had little noticeable effect on uranium prices. This is due largely to uncertainty regarding how and when any limitation or embargo might come into effect. Most US utilities appear to be waiting to determine what impact the recent developments will have on the market.

Buyer activity in non-US markets generally has been slight in recent months and outlook is pessimistic in the aftermath of the Chernobyl nuclear accident in the Soviet Union. Most European utility requirements are covered through the end of the decade. The few discretionary buyers have withdrawn from the market since the Chernobyl accident, which has created serious political problems for several European utilities, particularly in Central Europe. Indirectly, the accident is likely to cause the deferral of demand for several units and the abandonment of at least one nuclear power project for which the fuel has already been purchased. In addition to the effects of Chernobyl, European utilities view the District Court order in the USA as a possible source of downward pressure on uranium prices for non-US origin material. Given these developments, there is little motivation among Europeans to purchase now, and the same appears to be true in the Far East where opportunities could exist.

Conversely, an increase of buyer interest in US-origin uranium seemed to develop in the US utility market following the District Court order in June. However, adequate quantities of US-origin material were available to fill all buyer inquiries for US-origin uranium at prices only slightly above the current market values. Furthermore, at least one US buyer having a non-DOE enrichment contract entered the market to purchase material of any origin. As of the end of the month, despite some speculation in the USA, firm demand for large quantities of US-origin uranium had not emerged.

* * *

The decision handed down by Tenth District Court Judge J. R. Carrigan in the lawsuit involving three US producers and DOE drew a great deal of attention in the USA. Judge Carrigan's order, if not stayed, will likely force some US utilities to take some near-term action. This could involve feed transfers (e.g., *nationality swaps*, etc.), additional purchases of US-origin uranium, or new consideration by US utilities of overseas enrichment services as a short-term solution for utilizing their inventories of non-US origin feed.

US producers have reacted predictably. Most have either stopped offering uranium, withdrawn previous offers, or raised their offering prices. Those in the latter category are undoubtedly hoping for the development of a significant premium for US-origin material and wish to avoid underpricing their material. However, US utilities currently appear uninterested in entering agreements at these higher price levels. Whether a substantial premium for US-origin uranium will develop in the coming weeks or months will depend on the outcome of a complex network of legal and political issues. These interrelated issues, most of which are awaiting final legal, procedural, or executive authorization, are covered in detail in the following pages. In summary, they consist of the following:

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1. A decision may be made to grant DOE's motion to stay pending appeal the District Court order. The order requires DOE to implement limitations on the enrichment of non-US uranium for use in US plants. (See page 3.)

2. DOE has filed a notice of its intent to appeal the District Court's decision regarding Count I of the lawsuit (pertaining to an enrichment embargo). (See page 3.)

3. Near-term legislative solutions could also resolve many of the current conflicts. If the bill sponsored by New Mexico Senator Pete Domenici is passed by Congress incorporating in some form its present elements, it could well moot the Denver Court decision, in that the new law would take precedence over the judicial ruling. (See page 5.)

4. The US Trade Representative's findings that uranium import restrictions are not appropriate under present trade laws, combined with President Reagan's strong free-trade policies, must be considered as significant influences against any type of solution involving protectionist measures. While the Domenici legislation might be subject to a Reagan veto, the judicial ruling mandating enrichment restrictions may bring the Administration to the aid of DOE via some other political means. (See page 6.)

5. DOE is conducting a rulemaking for its proposed enrichment criteria covering, among other issues, the issue of import restrictions to maintain the viability of the US uranium production industry. This process may effectively moot the ruling in the lawsuit and prevent a situation in which non-US feed cannot be enriched for US utility use.

6. Finally, there are still substantial inventories of US-origin uranium around the world, held by entities unaffected by the District Court decision. Large quantities of this material may become available for swaps. Moreover, because of the increasing attention on public utility commission prudency hearings and other ratemaking procedures, US utilities are aware that uranium purchased at prices above spot market can be subject to cost disallowances. Therefore, most US utilities can be expected to delay buying decisions until the implications of restrictions on the use or enrichment of foreign-origin uranium become clearer.

In the longer term, it appears that some type of limitation on the use of non-US uranium by US utilities probably will be enacted, as a result of either the court order, DOE rulemaking or legislation. If the limitation is severe, a premium for US-origin material is almost certain to develop, but it is premature to speculate on the size of such a premium. The extent to which a shorter-term premium for US-origin material will develop is also unclear.

There have been episodes of two-tiered pricing in the past. In the early 1970s a total US embargo caused non-US origin prices to be about ten percent below prices for US uranium. In addition, for a period in the late 1970s, nonproliferation legislation in the USA, Canada and Australia gave rise to a temporary premium of less than five percent for uranium unencumbered by special restrictions on reprocessing. Moreover, there are always variations in uranium prices depending on the specific requirements for location, form, origin, and delivery schedule.

It is important to note that a two-tiered price in favor of US-origin material is not necessarily a definite long-term result of either Carrigan's decision or another action designed to protect domestic producers. Because Carrigan's September 1985 decision on Count II of the lawsuit invalidated the USEC (a ruling still under appeal), and because the court order could lead to *force majeure* situations between DOE and some US utilities, some US utilities may ultimately purchase substantial non-DOE enrichment services to replace their DOE services.

* * *

ENRICHED URANIUM AND SWUS

The **SWU Value** as of June 30, 1986, is $78 per SWU, up $3 since last month. This refers to SWU at a tails assay of 0.30 weight-percent U_{235} and for delivery within one year. One secondary market transaction that was in negotiation at the end of May, for a relatively large quantity of SWU, was concluded soon thereafter and is reported this month.

The secondary market for SWU remains thin due to the general absence of buyers with near-term needs. The availability of significant quantities of DOE or Eurodif-origin SWU at prices below $80 has become less certain in recent weeks and is the reason for the slight rise in SWU Value. However, a single expression of firm interest can influence prices in this market. New interest in the *possibilities* for secondary market enrichment has been generated by the District Court ruling, in that US utilities may consider it as a means of enriching non-US uranium if DOE is prevented from doing so. While several utilities are considering overseas enrichment for their non-US uranium inventories as a short-term solution, there has been no evidence that any US utilities are preparing to abandon their DOE contracts in favor of long-term secondary market enrichment services.

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RULING ON US URANIUM PRODUCERS VS. DOE LAWSUIT

US District Court Judge J.R. Carrigan has ruled on the remaining counts in the lawsuit filed in December 1984 by three US uranium producers — Western Nuclear, Inc.; Energy Fuels Nuclear, Inc.; and Uranium Resources, Inc. Their action had the support of other US producers, who later joined in the formation of an industry trade group known as the Uranium Producers of America (UPA). (Judge Carrigan ruled in favor of the producers on Count II in September 1985, and that issue has since resided in the Tenth Circuit Court of Appeals.)

The full text of Carrigan's order, covering Counts I, III, IV and V, is reprinted below. Count I, which asserted that DOE violated the Atomic Energy Act of 1954 [42 U.S.C. Sec. 2201(v) as amended], was the most significant issue in the five-count civil action. Part of the Act states that DOE, "....to the extent necessary to assure a viable domestic uranium industry, shall not offer such (enrichment) services for source or special nuclear materials of foreign origin intended for use in a utilization facility within or under jurisdiction of the United States." In September 1985, the Secretary of Energy had declared the US industry non-viable. On the basis of that declaration and other arguments, Carrigan found that the producers were indeed entitled to relief under section 2201(v) of the Atomic Energy Act.

The producers had asked the Court to order DOE to commence a rulemaking leading to the adoption of limits on the enrichment of foreign-source uranium for domestic end use, and to impose interim limitations on such enrichment pending the outcome of those proceedings. Carrigan ruled that DOE had violated the Act, denied DOE's requests to stay the proceedings,

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLORADO

Civil Action No. 84-C-2315

WESTERN NUCLEAR, INC., et al.,

Plaintiffs,

v.

F. CLARK HUFFMAN, et al.,

Defendants.

ORDER

CARRIGAN, J.

Oral argument was heard on June 5, 1986, on all pending motions in this case. The motions are directed to counts I, III, IV and V of the plaintiffs' complaint. Having heard the arguments of counsel with respect to the pending motions, having read the extensive briefs, and being fully advised, I hereby enter the following orders:

1. Plaintiffs' Motion for Summary Judgment with respect to Count I is granted and the defendants' Cross-motion for Summary Judgment with respect to Count I is denied. Defendants' request for a stay with respect to Count I is denied.

In light of the record, including affidavits submitted by the plaintiffs and *amici*, and including the information contained as part of the Secretary of Energy's determination in September 1985 that the domestic uranium industry was not viable, and in light of the Department of Energy's continuing refusal to recognize its obligations under 42 U.S.C. § 2201(v), I find that there is an immediate necessity for injunctive relief and therefore order as follows:

Given the Department of Energy's need to plan its implementation of the mandate of § 161(v) of the Atomic Energy Act, 42 U.S.C. § 2201(v), and pending the completion of the rule-making ordered herein: (a) the Department shall restrict its enrichment of source or special nuclear materials of foreign origin intended for use in a utilization facility within or under the jurisdiction of the United States to twenty-five percent of such materials enriched over the time period June 6, 1986, to December 31, 1986; (b) as of January 1, 1987, and continuing until the viability of the domestic uranium industry is assured, the Department shall not offer or provide any enrichment services for source or special nuclear materials of foreign origin intended for use in a utilization facility within or under the jurisdiction of the United States.

The Department shall commence administrative rule-making proceedings to establish criteria for providing enrichment services that shall comply with the mandate of 42 U.S.C. § 2201(v) to assure the maintenance of a viable domestic uranium industry. These criteria shall include the extent to which enrichment services may be made available for source or special nuclear material of foreign origin intended for use in a utilization facility within or under the jurisdiction of the United States. If the Department believes that criteria less restrictive than those imposed by this order would assure the maintenance of a viable domestic uranium industry, then the Department shall clearly articulate its reasons for such a position.

The court retains jurisdiction of this matter to assure compliance with this order.

2. With respect to the issues raised by Count III of the complaint, and the motions pending concerning Count III of the complaint, the defendants' Motion for Stay is granted for ninety days.

3. With respect to Count IV of the complaint, the defendants' Motion to Dismiss is denied and the defendants' Motion for Stay is denied. The defendants' Motion for Summary Judgment with respect to Count IV is granted.

4. Upon motion of the plaintiffs, there being no objection from the defendants, the plaintiffs are granted leave to withdraw Count V of their complaint without prejudice.

Dated at Denver, Colorado, June 10, 1986.

BY THE COURT:
JIM R. CARRIGAN, JUDGE
UNITED STATES DISTRICT COURT

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and granted the producers' motion for summary judgment. Carrigan then asked that counsel prepare for his signature an order consistent with his ruling. The producers' proposed order contained the provision that 75 percent of the uranium enriched by DOE from June 6, 1986 to December 31, 1986 for use in US reactors must be of US origin; and that as of January 1, 1987, and continuing until the viability of the domestic uranium industry was assured, DOE shall not enrich any foreign uranium for use in US reactors. DOE filed an opposition to the producers' proposed order, listing as grounds the following:

1. "An injunction placing any restrictions on enrichment of foreign (uranium) by DOE will create hardships for DOE, the domestic utilities and their customers, and raises serious international policy issues..."

2. (The producers' proposed order) "is inconsistent with 42 U.S.C. Sec. 2201(v) and exceeds the request for injunctive relief requested by (the producers)...Any such injunction clearly usurps both the role of the executive branch to establish criteria and the role of the legislative branch to review such criteria."

DOE concluded by requesting that the proposed order be modified accordingly. However, the order signed by Carrigan closely resembled the producers' draft. It called for immediate *injunctive* relief, ordering the same provisions for limitations on enrichment of foreign uranium for use in US reactors as were contained in the producers' proposal. (Injunctive relief requires some action on the part of DOE, as opposed to *declaratory* relief, which only would have expressed the opinion of the Court without ordering anything to be done.) Carrigan added that if DOE believes that *less restrictive* criteria would be sufficient to maintain a viable domestic uranium industry, then DOE must "clearly articulate its reasons for such a position." Carrigan also retained jurisdiction over the matter to assure compliance with the order.

Several days later, DOE filed three documents in the District Court.

1. A *Notice of Appeal* advised that DOE was appealing to the Tenth Circuit Court of Appeals the order granting the producers summary judgment on Count I and entering an injunction on that Count.

2. A *Motion for Stay Pending Appeal* requested an order staying the injunction entered by Carrigan, pending resolution of the appeal on Count I. (As of press time, Carrigan had not responded to the motion.)

3. A *Memorandum in Support of Motion for Stay Pending Appeal* argued the rationale behind DOE's motion for stay pending appeal. The full text of the memorandum, including a declaration by Sherry Peske, DOE's Director of Marketing and Business Operations, is reprinted on page 10.

DOE, in the memorandum supporting the motion for stay pending appeal, argued that it already had in its possession a high percentage of foreign feedstocks designated for use in US reactors. DOE claimed the order would prevent it from enriching all of the delivered feedstock needed for US reactors. Therefore, domestic utilities and DOE would suffer "irreparable injury without a stay," which "could result in shutdowns of domestic reactors."

DOE also argued for the motion on the grounds of public interest, claiming that the injunction "impacts adversely on foreign trade, foreign policy, and the nuclear non-proliferation policy of the United States." Finally, DOE maintained that the injunction oversteps the limits of statutory interpretation, equating Carrigan's injunction with judicial rulemaking in that it effectively changes the enrichment criteria without Congressional review as required by the Atomic Energy Act.

The fate of the motion for stay pending appeal appears to be the crucial issue at present. Carrigan may grant or deny the motion. If he grants the motion, which seems unlikely considering the tone of his order, the injunction will not go into effect while the appeal in the Tenth Circuit Court is pending. The appeal process could take many months, as evidenced by the fact that Count II has been before the Circuit Court since September 1985. If Carrigan denies the motion for stay pending appeal, DOE is likely to request the Circuit Court to grant a stay. In short, the legal procedures are extensive and time consuming; a final resolution could be delayed until 1987.

While the issues in Count I have caused the greatest amount of speculation and concern, Judge Carrigan also ruled on the remaining counts in the lawsuit. *Count III* sought to require DOE to allow customers to vary their tails assays at no charge, because the surcharge for the variable tails assay option (VTAO) under the USEC tends to reduce uranium consumption. Carrigan granted DOE's motion for a stay of proceedings for 90 days, so there will be no ruling on this issue until at least September 1986.

Count IV sought to prohibit the use of the federal government stockpile, either through sales of pre-production inventories or through over-feeding the enrichment cascades (to save power costs). Apparently persuaded that DOE had not and would not be using its stockpile in such a manner, Carrigan denied DOE's motions for dismissal and stay, but granted summary judgment in favor of DOE on this issue.

At the Court's suggestion, producers' counsel moved to withdraw *Count V*, and leave was granted to withdraw it without prejudice. Among other issues, Count V had sought judicial validation and enforcement of the principle that the US uranium industry shall be maintained in a condition such that it shall be capable of supplying 100 percent of US requirements at any time.

Nuexco Monthly Report 206 (October 1985, page 4) con-

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tained an analysis of Carrigan's September 1985 ruling on *Count II* of the lawsuit. Count II sought a declaration that the Utility Services Enrichment Contract (USEC) is null and void. Judge Carrigan ruled that the USEC violated the Atomic Energy Act because the contract amounted to a change in the criteria governing enrichment, and he entered a summary judgment in favor of the producers with respect to Count II. The judgment was appealed by DOE, and is now before the Tenth Circuit Court of Appeals.

TERMS OF THE DOMENICI LEGISLATION

Another possible resolution to the complicated network of interrelated issues takes the form of legislation introduced by Senator Pete Domenici (R, New Mexico). The draft legislation, which would require that at least 50 percent of all uranium used in US reactors in a given year be of domestic origin, is currently undergoing revisions. Nevertheless, the aim of the omnibus bill is to provide solutions to a variety of the industry's problems in one legislative measure.

Entitled the "Uranium Revitalization and Tailings Reclamation Act of 1986," the stated purpose of the Act is to "ensure an adequate long-term supply of domestic uranium and enrichment for the nation's nuclear power program; to reestablish a viable domestic uranium industry and...a competitive domestic enrichment program, and to...establish a comprehensive system for financing reclamation and other remedial action..." at uranium mills. Among other things, the legislation would address the following issues:

1. *Uranium Usage* — The bill would require the US Trade Representative to seek voluntary agreements limiting uranium imports from the major uranium-producing nations. Failing such agreements, the bill would require that at least 50 percent of the fuel loaded into civilian nuclear power reactors during any calendar year be domestic uranium through the year 2000. The penalty for not complying with this requirement would be a $500 charge for every kilogram of non-US uranium loaded into a reactor in a given year over the 50-percent limitation. However, the bill contains a grandfather clause; foreign uranium delivered to US utilities under contracts entered into prior to April 8, 1986 could be used, even if it caused the amount of foreign uranium used to exceed 50 percent. Compliance by plant licensees would be self-policing through an annual certification of the quantities of domestic and foreign uranium used.

2. *Viability* — The Atomic Energy Act requirement that the Secretary of Energy takes action so as to maintain a viable domestic industry (by limiting enrichment of foreign uranium for US use) would be waived until December 31, 2000.

3. *Government Uranium Purchases* — Agencies of the US Government (such as the Tennessee Valley Authority) would be required to purchase only domestic-origin uranium.

4. *Mill Tailings Reclamation* — Some costs of "remedial action" performed by mill owners or licensees would be subsidized by the Uranium Mill Tailings Fund. Contributions to the Fund would total about $1 billion, and would be made by the following parties in approximately these amounts.

Uranium Mill Owners or Licensees	— 30 percent
Nuclear Power Reactor Licensees	— 30 percent
Federal Government	— 30 percent
States with Active Uranium Mills	— 10 percent

5. *DOE's Cost Recovery* — DOE will contribute $350 million to the Mill Tailings Fund from its uranium enrichment revenues. This amount "shall be deemed to fully and completely repay the Treasury for one hundred percent of any and all debt the Department of Energy Uranium Enrichment Program has incurred prior to FY1986."

6. *Enrichment Contracts* — DOE's Utility Services Enrichment Contract (USEC) would be approved as is, with the exception that DOE would be precluded from charging a fee for the selection of variable tails assay option (VTAO) within the 0.2 percent to 0.3 percent range authorized in the contract.

7. *Privatization* — The Secretary of Energy would be required to submit to Congress a plan for the reorganization and commercialization of DOE's enrichment program. The plan would establish a Uranium Enrichment Services Corporation which would eventually be owned by the private sector. The plan, when submitted to Congress would include enrichment criteria for the first five years of the Corporation's service, the technology available to the Corporation, a business plan and other considerations.

Some parts of the bill are undoubtedly encountering opposition from various interest groups, including utilities and the Reagan administration. By writing down DOE's enrichment enterprise debt to only $350 million as of FY86, the bill is certain to mobilize taxpayer lobbying groups which claim that the debt is as high as $7 billion. The 50-percent limit on foreign uranium use probably represents the most politically sensitive aspect of the bill. The Edison Electric Institute (EEI), a utility industry association, submitted written testimony to a Senate subcommittee in May. The testimony supported many aspects of the bill, but strongly objected to the bill's import restrictions. In 1982, a similar effort by Domenici to impose uranium import restrictions was defeated in Congress.

Due to the Reagan Administration's free trade stance, the bill is likely to encounter significant resistance in the Senate and a possible veto from the President. However, in light of the injunction issued by the Federal District Court pertaining to use of foreign uranium, DOE's interest might be better served under

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the conditions of the Domenici bill. The bill provides for several other incentives for DOE to lend its support, namely the blessing given to the USEC and the write-off of virtually all of DOE's enrichment debt (the latter provision has raised substantial opposition from taxpayer lobbies). Moreover, the considerable attention devoted toward rulemaking (in an attempt to validate the USEC) could be averted. Should DOE's position in the litigation ultimately fail, the Department may seek Congressional support for the passage of the Domenici bill. In that event, DOE and the US producers would be in very similar lobbying positions.

NON-VIABILITY OF THE US URANIUM INDUSTRY AND IMPLICATIONS FOR US TRADE POLICIES

In September 1985, Secretary of Energy John Herrington declared that the US uranium industry was not viable in 1984. That declaration eventually became a significant factor in the Tenth District Court's findings regarding Count I of the US producers vs. DOE lawsuit. Stating that "I have taken steps to help the miners and millers in this important industry that is currently under a great deal of strain," Herrington:

1. Authorized DOE to offer a free VTAO each year to all customers that commit to buy 100 percent of their requirements from DOE over a rolling five-year period. (This item was sought under Count III of the lawsuit, but Judge Carrigan granted DOE's motion for a stay of proceedings for 90 days on this count.)

2. Postponed for one year a DOE plan to feed some of its own uranium stockpile into enrichment plants. (This item was sought under Count IV of the lawsuit. Carrigan apparently accepted DOE assurances that it did not plan to use the stockpile, and granted summary judgment in favor of DOE.)

3. Asked the United States Trade Representative, Clayton K. Yeutter, to examine the facts and implications of uranium imports and corresponding foreign trade and policy issues with a view to determining the appropriate courses of action under US trade laws. Yeutter was asked to report back in three months.

Yeutter's December 26, 1985 letter advising Herrington of his findings is reprinted below. His conclusions are based on the determination that canceled and delayed nuclear plants prevented demand from reaching expected levels, resulting in large excess inventory. This inventory overhang, combined with the recent high-grade discoveries in Saskatchewan which indicate the likelihood of long-term cost advantages for those producers, will continue to depress market prices for some time.

Yeutter then outlined the various legal means for imposing import restrictions by examining several US trade laws. **Section 201 of the Trade Act of 1974** is designed to provide temporary relief to domestic industries "seriously injured, or threatened with serious injury, by increased imports." Relief can be granted, following an investigation by the International Trade Commission and review by the President, generally for a period of only five years. Yeutter deemed this option inappropriate for several reasons:

1. He doubted that the International Trade Commission could be persuaded that the industry's problems are due more to imports than to other reasons, chiefly the reduced demand.

2. The industry's problems appear to be long-term in nature, rather than temporary, because of the competitive advantage for lower-cost producers elsewhere. This particular statute is designed to provide temporary relief. Moreover, the limited duration of the relief would not be sufficient to make the US industry viable given the nature of the foreign competition's advantages.

Section 232 of the Trade Expansion Act of 1962 provides relief when imports threaten national security. This section was found to be inappropriate for two reasons.

1. Uranium for commercial power generation, not military uses, is at issue.

2. Canada, a stable ally, is the principal source of uranium imported in the USA.

With regard to **Section 161(v) of the Atomic Energy Act**, Yeutter argued that to restrict enrichment of foreign uranium would only serve to "shift enrichment activity away from US government facilities to foreign facilities, thereby eroding the position of US enrichment enterprises." This argument is used by DOE in its memorandum supporting a stay pending appeal of the District Court injunction.

Thus, the Trade Representative's study found that it would be inappropriate to invoke any of the relevant trade statutes when:

— the actual benefit to the US production sector was undemonstrable and probably negligible; and

— the adverse impact on US trade relations, especially with Canada, the largest US trading partner, was unwarranted and could lead to retaliatory actions by other trading partners. The Reagan Administration is concerned about its role in upcoming multilateral trade negotiations, and bilateral trade liberalization discussions with Canada already have begun. With conflicts over tariffs on items such as timber, and the desire to avoid any type of trade war with Canada, it is doubtful that the Administration will risk jeopardizing a long-term, comprehensive trade agreement for the sake of uncertain benefits to US uranium producers.

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December 26, 1985
Honorable John Herrington
Secretary of Energy
Washington, D.C. 20585

Dear John:

As a follow-up to your request of September 26 for an examination of the situation of the domestic uranium mining and milling industry, we have completed our review of the issue and are now able to provide you with preliminary recommendations.

This is one of the more difficult questions we have studied in recent months. It involves, as many trade issues do, trying to achieve a delicate balance of domestic industry concerns, consumer interests, general economic policy, foreign, and, of course, trade policy concerns. Sometimes a policy option will emerge in the course of analysis which arrives at a desired balance that leaves most parties at least relatively satisfied with the outcome. Unfortunately, in this case, that seems impossible.

In reviewing the economic situation of the US uranium industry, we drew on existing expertise within various US Government agencies, including your own Department. Also included in our interagency working group were the Departments of State and Commerce and the Office of Management and Budget. We consulted with interested parties outside the Government on an informal basis, and our preliminary conclusions were reviewed by the Trade Policy Staff Committee, which included all agencies concerned with international trade. While our review focused on the trade policy aspects of the situation, it included all relevant factors and thus our comments are framed within the broad context of the uranium issue.

Without a doubt, the domestic uranium mining and milling industry has severe economic problems, as you well know from your own review and viability determination. From their peak in the 1970's production and employment have fallen to very low levels. However, it would appear from our review that the principal cause of this decline is the failure of demand to materialize in the early 1980's as a number of nuclear power plants were delayed or cancelled. As a result, a huge excess inventory was created that could take up to ten years to work off, with a consequent depressing effect on market prices. On top of this, recent uranium discoveries in Canada indicate a long-term comparative advantage for their producers in terms of ore quality and production cost.

Against this background of the outlook for the next five to ten years, we evaluated the appropriateness and likely effectiveness of existing trade laws to help the US industry and the trade policy implications of initiating action under these laws. The following is a summary of our preliminary assessment.

Section 201 of the Trade Act of 1974 is intended to provide temporary relief to domestic industries seriously injured, or threatened with serious injury, by increased imports. The relief provided (following an extensive investigation by the International Trade Commission and a review and decision by the President) is generally only for up to five years to allow the affected domestic industry time to adjust. There are two principal questions relative to this discussion: (1) Is self-initiation of Section 201 appropriate to the current situation? and (2) Should the special provisions of Section 170B of the Atomic Energy Act regarding self-initiation of a Section 201 investigation be invoked?

Regarding the first question, we would advise against self-initiation of a Section 201 investigation at this time for several reasons. First, it is unlikely that the International Trade Commission would find that the industry's problems are due more to imports than to any other single cause; significantly reduced demand appears to be the major factor. Second, since the industry's problems appear to be long-term rather than temporary because of the fundamental comparative advantage of Canadian and Australian producers, we do not believe Section 201 is appropriate. Third, even if Section 201 relief were provided, it appears that its effects, while marginally improving the industry's position, would not be sufficient to make the domestic industry viable, especially in view of its limited duration and the substantial foreign advantage with respect to ore quality and production cost.

Regarding the second question, we would advise against your making a prior determination of the effect of imports on the domestic industry, even if self-initiation of a Section 201 investigation were appropriate, because of the complex legal issues which could result from a pre-investigation injury finding by an agency other than the ITC.

Section 232 of the Trade Expansion Act of 1962 provides relief where imports are found to be threatening our national security. Uranium for military uses is not an issue here, but only uranium for commercial electric generation. The principal source of imports is Canada, and immediate neighbor and a longtime stable ally. For this and other reasons, we do not believe it would be appropriate to self-initiate an investigation at this time.

We also examined the possibility of self-initiation of countervailing duty or antidumping investigations, based on various allegations of subsidies and dumping with regard to Canadian imports. From a preliminary and informal analysis of the available information, we do not believe such actions would be effective or appropriate. Our industry, of course, is free to file petitions of its own if it believes such actions are a cause of material injury. However, we feel the allegations are not such as to merit the exceptional step of self-initiation since, even accepting the allegations at face value, the resulting duties would not be sufficient to offset the cost advantage of Canadian producers.

With regard to the authority to restrict enrichment of foreign uranium under Section 161(v) of the Atomic Energy Act, it appears that a major consequence would be the shift of enrichment activity from US government facilities to foreign facilities, thereby eroding the position of US enrichment enterprises.

In summary, action under the US trade statutes does not appear to be appropriate in regard to both the short- and long-term problems facing the domestic uranium mining and milling industry. Moreover, any remedy granted under existing law which might provide the extent of relief requested by the industry would only be short-term, while at the same time having an adverse impact on our trade and other relations with important trading partners without resolving the long-term problems of the industry. For example, we have just begun discussions with Canada on bilateral trade liberalization. Short-term actions adversely affecting Canadian trade would therefore be ill-advised, particularly if they did not lead to a permanent restoration of competitiveness for our industry. In addition, for any trade restriction not in response to a verified unfair trade practice, we would also owe compensation to, or face retaliation by, our other trading partners whose imports would be reduced. Thus, other sectors in the US economy would be asked to make sacrifices for any short-term import relief provided for the uranium industry.

For these reasons, I would advise against taking any action at this time to restrict uranium imports under existing law. I hope these comments are responsive to your request. If you have any further questions, please give me a call.

Sincerely,
Clayton Yeutter

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PRICING

US UTILITIES AND THE DISTRICT COURT INJUNCTION

Uranium and Enrichment Commitments

The uncertainty created by the legislative and judicial developments currently affecting the industry — the District Court ruling, uranium and enrichment-related legislation before Congress, DOE rulemaking and proposed revisions to the enrichment criteria, US trade negotiations with Canada — has prompted a great deal of speculation on probable outcomes and implications for US utilities. To the degree that limitations on the enrichment of non-US uranium for use in US reactors might become effective, it is interesting to try to examine the situation of US utilities in terms of origin of uranium supply and enrichment service contracting. Unfortunately, such generalizing often yields results that are inconclusive. For example, Nuexco estimates that US utilities have contracted to import some 7.2 million pounds U_3O_8 equivalent in 1986. They also have current contracts to import some 4.3 million pounds in 1987 and 5.7 million pounds in 1988. However, it is impossible to determine what effect these quantities, taken by themselves, will have on inventory balances in the USA. For instance, Nuexco expects US producers and suppliers to import about 3.9 million pounds U_3O_8 in 1986. Most of this will probably be redelivered to US utilities, but it will remain foreign origin. Deliveries of US uranium held by non-US producers or traders must also be considered.

Even more difficult to predict are utilities' rates of consumption, both in the strictest sense of the term and in terms of overall fuel procurement and fuel management strategies. Units currently undergoing licensing procedures are subject to the delays that have now become commonplace, and which serve to delay the onset of inventory drawdown. Some utilities may choose to alter their 180-day notices of scheduled enrichment withdrawals from DOE, so as to use foreign-origin inventory for their DOE enrichment contracts to the maximum extent possible, saving their US-origin feed for future use. Other utilities might preserve their US inventories for later use by substituting foreign uranium bought on the spot market.

The scenarios presented above all assume that USEC holders continue to buy DOE's enrichment services. At present, only five US utilities (including one utility group) are not covered by the USEC. Ultimately, if DOE is forced to comply with a judicial order restricting its enrichment services, other utilities can be expected to seek enrichment services elsewhere, at least for the short-term. The scenarios for this move are as varied as the agreements that DOE entered into with the utilities when it introduced the USEC. Some utilities might claim breach of contract if DOE cannot agree to accept the feed origin specified by the utility in its required 180-day notice; some might exercise termination clauses; others, using as justification the ruling that the USEC was null and void, might simply abandon the contract and seek replacement contracts overseas. At present, there have been no indications that any USEC holders have taken such action. These reactions will become more evident when DOE's legal and political alternatives have been exhausted.

Table 1 shows the US utilities that signed the USEC and therefore are currently under contract to DOE for at least 70 percent of their enrichment requirements. It also lists the utilities that did not sign the contract and either have entered agreements with a non-US enricher or have no long-term contracts.

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Table 1

ENRICHMENT STATUS OF US UTILITIES

Signed the Utility Services Contract

Arizona Public Service Company
Baltimore Gas & Electric Company
Carolina Power & Light Company
Cleveland Electric Illuminating Company
Commonwealth Edison Company
Consolidated Edison Company
Consumers Power Company
Dairyland Power Cooperative
Detroit Edison Company
Duke Power Company
Duquesne Light Company
Florida Power Corporation
Florida Power and Light Company
General Public Utilities Company
Gulf States Utilities
Houston Lighting & Power Company
Illinois Power Company
Iowa Electric Light & Power Company
Kansas Gas & Electric Company
Long Island Lighting Company
Middle South Services
Nebraska Public Power District
New York Power Authority
Niagara Mohawk Corporation
Northeast Utilities
Northern States Power Company
Ohio Edison Company
Omaha Public Power District
Pennsylvania Power & Light Company
Philadelphia Electric Company
Portland General Electric Company
Public Service Company of Colorado
Public Service Electric & Gas Company
Public Service Company of New Hampshire
South Carolina Electric & Gas Company
Southern California Edison Company
Southern Company Services, Inc.
Tennessee Valley Authority
Texas Utilities Generating Company
Toledo Edison Company
Union Electric Company
Virginia Electric Power Company
Washington Public Power Supply System
Wisconsin Electric Power Company
Wisconsin Public Service Company

Did Not Sign the Utility Services Contract

American Electric Power Company
Boston Edison Company
Maine Yankee Atomic Power Company
Pacific Gas and Electric Company
Sacramento Municipal Utility District
Vermont Yankee Nuclear Power Corporation
Yankee Atomic Electric Company

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PRICING

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLORADO

WESTERN NUCLEAR, INC., et al.,

Plaintiffs,

v.

F. CLARK HUFFMAN, et al.,

Defendants.

Civil Action No. 84-C-2315

DEFENDANTS' MEMORANDUM IN SUPPORT OF MOTION FOR STAY PENDING APPEAL

On June 20, 1986, the Court issued its order on Counts I, III, IV and V of this case. In conjunction with the declaratory judgment entered on Count I, this Court issued an injunction prohibiting the Department of Energy ("DOE") from enriching source of special nuclear materials of foreign origin intended for use in a utilization facility within or under the jurisdiction of the United States in excess of twenty-five percent (25%) of such materials enriched over the time period of June 6, 1986 to December 31, 1986. Thereafter, the Court's injunction restricts the enrichment of all source or special nuclear materials of foreign origin intended for use in a utilization facility within or under the jurisdiction of the United States until the viability of domestic uranium is assured or DOE completes its rulemaking under 42 U.S.C. § 2201(v).

As defendants have previously demonstrated to this Court, the harmful effects of this injunction on DOE, the domestic utilities and the public sector are immediate and irreparable. Plaintiffs, however, are unlikely to realize any significant benefit from this sweeping injunction, and any injury they suffer if a stay is issued is insubstantial when balanced against the harm to DOE and others. Moreover, on the merits of Count I, including the appropriateness of injunctive relief, defendants submit that the very nature of the legal issues favor a stay pending appeal. For these reasons, more fully articulated below, defendants request that the Court stay the effects of the injunction pending resolution of the appeal filed by defendants on Count I.

ARGUMENT

A STAY SHOULD BE GRANTED TO PRESERVE THE STATUS QUO PENDING APPEAL

In determining whether to grant a stay pending appeal, this Court must weigh: (1) whether the applicant has made a strong showing that he is likely to prevail on the merits; (2) whether without the requested relief the applicant will be irreparably injured; (3) whether the issuance of the stay would substantially harm the other parties; and (4) whether the issuance of the stay would promote the public interest. *Battle* v. *Anderson*, 564 F.2d. 388, 397 (10th Cir. 1977); *National Indian Youth Council* v. *Andrus*, 623 F.2d 694, 695 (10th Cir. 1980); *Virginia Petroleum Jobbers Association* v. *FPC*, 259 F.2d 921, 925 (D.C. Cir. 1958). Applying these standards to this case, it is clear that defendants can establish their entitlement to a stay pending appeal of the injunctive relief granted on Count I.

I. Defendants And The Domestic Utilities Will Suffer Irreparable Injury Without A Stay And No Comparable Injury To Plaintiffs Will Result If A Stay Is Granted

Unless a stay is entered pending appeal DOE will be forced to inform its domestic utility customers that it cannot enrich much of the feedstock already delivered to DOE for enrichment in 1986. Declaration of Sherry E. Peske, Director, Office of Marketing and Business Operations, Uranium Enrichment Program, United States Department of Energy (hereinafter "Peske Declaration") ¶ 17. As Ms. Peske explains in her declaration, over 50 percent of the feedstock already delivered to DOE for enrichment in 1986 is of foreign origin. *Id.* ¶ 15. Because of the high percentage of foreign origin material already in DOE's possession, which is designated for use in domestic facilities, DOE projects that a minimum of 35% foreign origin uranium would be enriched through December 31, 1986, even if no further deliveries of foreign feedstock are accepted by DOE for 1986. *Id.* ¶ 17. Thus, the 25% restriction in the June 20 Order raises serious practical problems, which if not stayed pending appeal, could result in shutdowns of domestic reactors. *See* June 13, 1986 Declaration of Loring Mills filed with Joinder of Amici Curiae In Opposition to Injunction, ¶ 9.

Moreover, DOE's inability to enrich foreign uranium for its customers is likely to result in claims from domestic utilities that DOE has breached its enrichment contracts with them. If these claims are successful, DOE could be found liable for millions of dollars in losses suffered by the domestic utilities as they exercise their options to buy more costly domestic uranium or enrich overseas. Peske Declaration ¶ 7.

In addition to facing possible costly and protracted contract litigation over its inability to enrich foreign origin uranium for its domestic customers, DOE is faced with the prospect of substantial losses of enrichment sales to both domestic utilities and foreign customers. Any significant loss of business by DOE will necessitate price increases for enrichment services with the likely result of even more DOE customers terminating their enrichment contracts in favor of less costly foreign enrichment. Peske Declaration ¶¶ 9-12. This loss of business could result in monetary losses to DOE of as much as $420 million for calendar year 1987 and $60 million for the period August through December 1986. *Id.* ¶ 11. Since a reversal of the Court's Order on appeal will not restore the loss of business and lost revenues to DOE, its harm is clearly irreparable.

Plaintiffs on the other hand, have made no effort to document their claim that the injunction will assist their industry in any meaningful way. As long as enriched uranium can be brought into the United States more economically the domestic utilities will have no incentive to purchase the more expensive domestic uranium for enrichment by DOE. It is primarily for this reason that the injunction will not aid the viability of the domestic mining industry. *Id.* ¶ 13.

II. The Public Interest Would Be Best Served By The Issuance Of A Stay

In determining whether to issue a stay pending appeal it is appropriate to consider the relative harm to the public interest. As the District of Columbia Circuit stated: "[t]he interests in private litigants must give way to the realization of public purpose." *Virginia Petroleum Jobbers Ass'n* v. *FPC*, 259 F.2d at 925.

In this instance, the declarations of James B. Devine, on behalf of the State Department and Robert A. Reinstein, on behalf of the United

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States Trade Representative's Office, filed with the Court on June 16, 1986 and incorporated herein by reference, provide clear evidence that the public interest is best served by issuance of a stay pending appeal. As these declarations reveal, the nature of this Court's injunction both in its timing and content, impacts adversely on foreign trade, foreign policy, and the nuclear non-proliferation policy of the United States.

In addition, the consumers of electric power will likely suffer rate increases during the pendency of this appeal generated by the increased costs to the utilities associated with the injunctive relief entered on Count I. *See* June 13, 1986 Declaration of Loring Mills ¶ 12.

For these reasons, the public interest strongly favors issuance of the requested stay pending appeal.

III. There Is A Substantial Likelihood That Defendants Will Prevail On The Merits Of Its Appeal

The Court's holding that DOE has no discretion to implement § 161v of the Atomic Energy Act, 42 U.S.C. § 2201(v) raises significant and serious legal issues for appeal. For the purposes of this motion defendants recognize that they are unlikely to convince the Court that its recent decision granting summary judgment to plaintiffs on Count I was in error.

The Court's decision to issue an injunction, however, goes well beyond the statutory interpretation question presented to the Court in Count I. This injunction is akin to judicial rulemaking in that it substitutes its own enrichment criteria for those now in effect, without the benefit of Congressional review as contemplated by § 161(v). Because the injunction is not a *status quo* injunction but changes the enrichment rules effective immediately, the Court's consideration of the merits factor should weigh in favor of a stay.

Moreover, as the Court of Appeals of the District of Columbia Circuit recognized in *Washington Metropolitan Area Transit Comm'n v. Holiday Tours, Inc.* 559 F.2d. 841, 843 (D.C. Cir. 1977), a "court is not required to find that ultimate success by the movant is a mathematical probability, and indeed,...may grant a stay even though its own approach may be contrary to movant's view of the merits." Wooden application of the "likelihood of success" criteria would quickly swallow the whole of the equitable mechanism in Rule 62, Fed. R. Civ. P. since the court has already made a judgment on the merits. The decision in *Holiday Tours* made clear that:

> [W]hat is fairly contemplated is that tribunals may properly stay their own orders when they have ruled on an admittedly difficult legal question and when the equities of the case suggest that the *status quo* should be maintained.

559 F.2d at 844-45. Under this standard, the Court should stay its judgment.

CONCLUSION

For all of the foregoing reasons, defendants' motion for a stay pending appeal of the Court's June 20, 1986 Order and judgment granting injunctive relief on Count I should be granted.

Dated this 23rd day of June, 1986.

Respectfully submitted,

RICHARD K. WILLARD
Assistant Attorney General

ROBERT N. MILLER
United States Attorney

DENNIS G. LINDER

MARYANN CLIFFORD

Attorneys, Department of Justice
Civil Division, Room 3728
10th & Pennsylvania Ave., N.W.
Washington, D.C. 20530
Telephone: (202) 633-4775

Attorneys for Defendants

DECLARATION OF SHERRY E. PESKE

Sherry E. Peske, United States Department of Energy, Washington, D.C., declares and states as follows:

1. I am the Director, Office of Marketing and Business Operations, Uranium Enrichment Program, United States Department of Energy ("DOE"), Washington, D.C. I have held this position — first as Acting Director and then as Director — since December 1980. In this capacity, I am responsible for the contracting, marketing, production planning, and financial management functions of the Department's uranium enrichment program.

2. I am making this declaration for the purpose of explaining the practical effects that the Order signed by the District Court on June 20, 1986 will have on DOE, its customers and the domestic mining and milling industry. The statements made in this declaration are based on my personal knowledge, as well as on information provided to me by members of my staff in the course of our official duties.

I. BACKGROUND

3. The current Enrichment Services Criteria promulgated by DOE pursuant to §161(v) of the Atomic Energy Act ("AEA"), 42 U.S.C. §2201(v), contain no restrictions on the enrichment of foreign-origin uranium intended for use in domestic nuclear power reactors. Prior to 1977, there were criteria that provided that foreign-origin uranium could not be enriched if it was intended for use in domestic nuclear power reactors. However, an amendment to the Enrichment Services Criteria was promulgated on October 25, 1974 (See 39 FR 38016), which provided for the gradual removal of such restrictions beginning in 1977, and which eliminated any such restrictions in 1984. Based on the [illegible]vification to the Criteria, DOE contracts with utilities contain no restrictions on enrichment of foreign-origin uranium, and domestic utilities have negotiated uranium supply contracts with foreign producers.

4. The Department of Energy is currently engaged in a rulemaking to revise its Enrichment Services Criteria. Although final Criteria have not been issued, the Department has stated in its proposed rule that, in its view, no level of restrictions on the enrichment of foreign-origin uranium would ensure or promote the viability of the domestic uranium producing industry. The severe difficulties currently facing the domestic mining and milling industry stem from various factors, including the disparity between the production costs of domestic and foreign uranium, shrinkage in the demand for nuclear power, excess uranium inventories, excess uranium production capacity, and cancellation of nuclear powerplants due to cost overruns and licensing delays. The basis for the Department's initial determination that restrictions on the

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enrichment of foreign-origin uranium are not appropriate is set forth in DOE's Notice of Proposed Rulemaking published on January 29, 1986, at 51 Fed. Reg. 3624.

II. THE IMPACT OF THE INJUNCTION RESTRICTING ENRICHMENT OF FOREIGN SOURCE OR SPECIAL NUCLEAR MATERIAL

5. The restrictions that the district court's injunction imposes on DOE will create severe problems both for DOE and its domestic utility customers. These problems are both economic and practical.

6. I have reviewed the two affidavits of Loring Mills filed with the district court on behalf of the *amicus* domestic utilities. Each of the likely responses that the utilities would take in response to the injunction, as described by Mr. Mills in his June 13, 1986 affidavit, would result in significant, immediate, and irreparable harm to DOE.

7. As previously noted, the contracts in effect between DOE and its utility customers permit the utilities, in accordance with the current Enrichment Services Criteria, to determine for themselves whether to supply foreign or domestic source or special nuclear materials when they deliver uranium to DOE for enrichment. Any refusal by DOE to accept feed material of non-U.S. origin for enrichment, therefore, is likely to result in domestic utilities, who represent 65% of DOE's sales base, claiming that DOE is in breach of its contracts with such utilities. If such claims are successful, DOE would potentially be liable for the millions of dollars in extra costs that would be incurred by utilities that are forced to replace foreign-origin uranium with more costly domestic feed. In fact, several of DOE's customers already have informed DOE, informally, that they believe DOE may be liable for any damages they may suffer as a result of DOE's failure to perform its contractual commitments in accordance with the terms of their enrichment contracts. The utility customers' possible claims against DOE also may include lost value of foreign uranium already delivered to the utilities, damages that the utilities incurred as a result of claims made by the foreign producers for breach of contract, and any losses arising out of disruption of service caused by an inability to procure domestic feed in a timely manner.

8. Furthermore, if the imposition of feed restrictions by DOE is held to be a breach of contract, domestic customers probably would be able to terminate their enrichment contracts with DOE without cost. Indeed, even if such restrictions do not constitute a breach of contract, it still may be economically advantageous for customers to terminate their enrichment contracts with DOE, pay any termination charges, and purchase enrichment services abroad. There is no legal impediment to domestic utilities relying wholly on foreign procurement to meet their enriched uranium needs, and, as I explain below, the district court's injunction will be a powerful incentive for them to do so.

9. DOE is currently the highest price enrichment supplier in the world, and its European competitors have been actively (and in some cases successfully) trying to penetrate the U.S. market for several years. DOE anticipates that its foreign competitors will continue to be willing to offer attractive terms to utilities in order to induce them to satisfy their enrichment requirements abroad rather than from DOE. In fact, it has been the practice of DOE's competitors to agree to pay the termination charges that are incurred when DOE's customers terminate their enrichment contracts with DOE if the customers sign replacement contracts with the competitor. The financial incentive to procure enrichment services abroad rather than from DOE is likely to become significant if the price that a customer must pay for continuing to rely on DOE's services is procurement of domestic feed material, which is more costly than foreign feed material.

10. Moreover, contrary to plaintiffs' assertions, sufficient foreign enrichment capacity and foreign enrichment inventories do currently exist to supply domestic enrichment needs. Both Eurodif, a French-based enrichment supplier, and the U.S.S.R. presently possess substantial excess enrichment capacity. This, coupled with a very large existing inventory of foreign-origin enriched uranium, means that about 25 million SWU (five times the current annual domestic demand for enrichment services) are available in both FY 1986 and FY 1987 that could be substituted for procurement of enrichment services from DOE.

11. According to our current information, eight of DOE's domestic utility customers have already purchased foreign-origin uranium in the expectation that it will be enriched by DOE between now and December 31, 1986. Enrichment of this already purchased material would cause DOE to exceed the quota established by the district court's injunction. For 1987, sixteen of DOE's domestic utility customers have already committed to buy substantial quantities of foreign-origin uranium. If these utilities that have already bought or committed themselves to buy foreign-origin uranium decide that the injunction against enriching such material makes it unprofitable for them to procure enrichment services from DOE, DOE will lose approximately $60 million in enrichment sales through December 1986, and over $430 million in sales for calendar year 1987. These sales reflect the shift of about 5 million SWU to foreign enrichers over the next year-and-a-half. Furthermore, regardless of the final outcome of this lawsuit, the lost revenues of such sales could not be recovered by DOE.

12. The significant loss of enrichment sales by DOE that the injunction is likely to cause would make DOE non-competitive in the world enrichment services market. Because DOE is required by the AEA to recover its costs, and because a large portion of the costs attributable to DOE's enrichment enterprise are fixed, a decreased volume of sales will necessarily result in a higher unit cost. As previously noted, DOE is currently the highest priced enrichment supplier in the world and has already lost a substantial market share as a result of this factor. The higher unit costs that will result from a loss of enrichment sales will force DOE to raise its price and create an even greater disparity.

13. Finally, the ultimate effect of a restriction on DOE enrichment of foreign-origin uranium will be harmful to the entire domestic nuclear industry, including domestic producers of natural uranium. Most domestic DOE enrichment customers currently obtain a large percentage of their uranium requirements from domestic sources. In contrast, the customers of DOE's foreign competitors almost invariably use foreign ore. If DOE customers terminate their contracts and take their business to overseas enrichers, they may obtain all of their natural uranium needs from foreign produces, who offer attractively priced package deals. Thus, a loss of enrichment sales by DOE will actually risk futher damaging the U.S. mining and, indeed, could make its current nonviable condition irreversible.

III. THE IMPRACTICABILITY OF COMPLYING WITH THE SHORT TERM RESTRICTIONS ON ENRICHMENT OF FOREIGN-ORIGIN MATERIAL THAT ARE IMPOSED BY THE INJUNCTION

14. A minimum of six months normally elapses between the time that a utility receives uranium from a producer's mill and the date when

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the utility receives finished enriched uranium. This is due primarily to the physical and chemical processing times associated with uranium processing and enrichment. The utility customer must first have the natural uranium that it buys converted into a form ready for enrichment (uranium hexafluoride) — a process which requires approximately 90 days. Under its contract with DOE, a utility then must deliver the uranium hexafluoride (feedstock) to DOE between 90 and 180 days prior to the time requested by the customer for delivery of enriched product. This leadtime is essential, as the enrichment processing requires an elapsed period of at least 90 days.

15. In the normal course of its operational schedule, DOE already has enriched the feedstock for those domestic utility orders that will be delivered by DOE through early October 1986. Additionally, domestic utility customers have already delivered to DOE nearly 70 percent of the feedstock for their enriched product deliveries that are scheduled to occur between September and December 1986. Of this already delivered feedstock, over 50 percent is of foreign origin, according to the information supplied by utilities to DOE at the time they made their deliveries.

16. Furthermore, domestic uranium producers, such as the plaintiffs in this case, have been fulfilling some of their contractual obligations to domestic utilities by supplying foreign-origin uranium. Consequently, even when a utility has bought uranium from a domestic uranium producer, the uranium that the utility actually receives and delivers to DOE often consists of foreign-origin material. Indeed, according to statistics compiled by the Energy Information Administration of the DOE, such domestic producers have entered into contracts for over 37% of the total foreign-origin uranium currently under contract for 1985-1990 delivery. This situation has arisen because it is generally less expensive for domestic producers to purchase uranium from abroad for resale instead of producing the material domestically.

17. Even assuming that no further foreign-origin material is delivered to DOE by its utility customers for the remainder of calendar year 1986, DOE cannot stay within the quota established by the district court and still meet its contractually required enriched uranium delivery schedules. This situation exists because DOE's utility customers have already delivered most of their feedstock that is scheduled for enrichment in 1986, and the percentage of foreign-origin material already delivered exceeds the quota set by the district court. Even if no more foreign-origin material is delivered to DOE, DOE estimates that it will be required to enrich a minimum of 35% foreign-origin uranium between now and December 31, 1986.

18. This estimate, if anything, probably understates the problem because, as I have explained, the above estimate is predicated upon the assumption that the domestic utilities do not deliver any foreign-origin uranium between now and December 31, 1986. However, this assumption does not take into consideration the fact that, because of the leadtime required for converting natural uranium into uranium hexafluoride, the utilities have already submitted to the conversion plants most of the as yet undelivered uranium that is expected to be enriched by DOE later this year. Upon information and belief, the convertors already are processing such uranium. DOE estimates that if domestic utilities furnish DOE with the feedstock converted from uranium currently in the possession of the convertors, approximately 50% foreign-origin uranium would be required to be enriched between now and December 31, 1986.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on this 23rd day of June 1986.

SHERRY E. PESKE

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CURRENT MARKET DATA

June 30, 1986	Market Values	Active Supply[1] (thousands)	Active Demand[1] (thousands)
EXCHANGE VALUE	**$17.00**/lb. U_3O_8	4,050	2,050
UF_6 VALUE	**$48.25**/kgU		
CONVERSION VALUE	**$1.80**/lb. U as UF_6	1,700	565
SWU VALUE 0.3 tails assay; delivery within one year	**$78**/SWU		
LOAN RATE	**4%**/annum	0	0

	$/lb. U_3O_8	Millions of Pounds	Number of Transactions	Number of Months
TRANSACTION VALUE	**17.20**	2.2	14	3

[1]Supply and demand tables in *Current Market Data* section of this Report detail the numbers for each category.

DEFINITIONS

1. The **Exchange Value** is Nuexco's judgment of the price at which transactions for significant quantities of natural uranium concentrates could be concluded as of the date indicated.
2. The **UF_6 Value** is Nuexco's judgment of the price at which spot and near-term transactions for significant quantities of natural uranium hexafluoride could be concluded as of the date indicated.
3. The **Conversion Value** is Nuexco's judgment of the price at which spot and near-term transactions for significant quantities of conversion services could be concluded in the secondary market as of the date indicated.
4. The **SWU Value** represents Nuexco's judgment of the price at which transactions for the sale of significant quantities of SWUs of stated origin for delivery in the specified time period could be concluded as of the date indicated.
5. The **Loan Rate** is Nuexco's judgment of the annual interest rate at which uranium loans could be concluded as of the date indicated.
6. The **Transaction Value** is a weighted average price of recent natural uranium sales transactions. The calculation is based on prices paid in:
   a. Transactions closed within the previous three-month period for which delivery is scheduled within one year of the transaction date;
   b. At least ten transactions;
   c. Transactions involving a sum total of at least 2 million pounds U_3O_8 equivalent.

   The sample time is extended as necessary to include these minima. Other currencies are converted to US dollars using conversion rates in effect on or near the transaction date.

DERIVATIONS AND COMMENTS

1. All Market Values are based on:
   a. Data from recently completed transactions.
   b. Data from pending transactions.
   c. Firm bids to buy or borrow, and firm offers to sell or lend.
   d. Prices purchasers or rates borrowers have expressed a willingness to pay, but for which Nuexco is not aware of firm bids to buy or borrow, and prices sellers or rates lenders have expressed a willingness to accept, but for which Nuexco is not aware of firm offers to sell or lend.
2. Prices associated with deliveries under old or renegotiated contracts or other than arm's-length transactions are not included in the determination of these Market Values.
3. In the determination of the Conversion Value, Nuexco does not consider transportation charges other than those customarily provided by primary suppliers of conversion services.
4. The prices of conversion services or SWUs delivered under long-term contracts with primary suppliers are not considered in the determination of either the Conversion Value or SWU Value.
5. For the SWU Value, Nuexco converts SWU prices at varying tails and product assays to equivalent SWU prices at a tails assay of 0.30 weight-percent U_{235} and a product assay of 3.0 weight-percent U_{235}, assuming feed costs corresponding to the Nuexco Exchange and Conversion Values determined as of the same date.
6. In calculating the Transaction Value, Nuexco does not account for the price of uranium delivered in connection with contracts which call for "market price" mechanisms. This exclusion applies particularly to contracts in which delivery prices are expressed as a function of future Exchange Values or any other indeterminate variable. Also excluded from the calculation are any other transactions in which the delivery price is defined in such a way that it cannot currently be determined.

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EXCHANGE VALUE EXPRESSED IN SELECTED PRODUCER & CONSUMER CURRENCIES[1]

Country (currency)	per lb. U_3O_8 in Concentrates			per kg. U in Concentrates		
	This Month (Jun 30, 1986)	Last Month (May 31, 1986)	12 Months Ago (Jun 30, 1985)	This Month (Jun 30, 1986)	Last Month (May 31, 1986)	12 Months Ago (Jun 30, 1985)
Australia (dollar)	25.35	23.64	22.50	65.92	61.47	58.49
Belgium (comm. franc)	765.08	796.25	921.94	1,989	2,070	2,396
Canada (dollar)	23.60	23.41	20.45	61.36	60.86	53.16
Finland (markka)	87.13	89.62	95.12	226.53	232.98	247.28
France (franc)	119.30	124.82	139.41	310.15	324.49	362.42
FRG (mark)	37.43	39.21	45.76	97.31	101.93	118.96
Italy (lira)	25,703	26,759	29,222	66,822	69,567	75,972
Japan (yen)	2,810	2,923	3,732	7,305	7,599	9,703
Netherlands (guilder)	42.12	43.93	51.69	109.50	114.20	134.38
South Africa (rand)	42.29	39.44	29.50	109.94	102.54	76.69
Spain (peseta)	2,399	2,484	2,619	6,238	6,457	6,810
Sweden (krona)	121.26	123.91	132.04	315.24	322.13	343.28
Switzerland (franc)	30.63	32.46	38.34	79.62	84.39	99.68
UK (pound)	11.10	11.42	11.58	28.86	29.68	30.11
US (dollar)	17.00	17.00	15.00	44.20	44.20	39.00

TRANSACTION VALUE EXPRESSED IN SELECTED PRODUCER & CONSUMER CURRENCIES[1]

Country (currency)	per lb. U_3O_8 in Concentrates			per kg. U in Concentrates		
	This Month (Jun 30, 1986)	Last Month (May 31, 1986)	12 Months Ago (Jun 30, 1985)	This Month (Jun 30, 1986)	Last Month (May 31, 1986)	12 Months Ago (Jun 30, 1985)
Australia (dollar)	25.65	23.85	21.90	66.69	62.01	56.93
Belgium (comm. franc)	774.08	803.28	897.36	2,012	2,088	2,332
Canada (dollar)	23.88	23.62	19.90	62.08	61.40	51.74
Finland (markka)	88.16	90.41	92.58	229.20	235.04	240.69
France (franc)	120.70	125.92	135.69	313.80	327.36	352.76
FRG (mark)	37.87	39.55	44.54	98.45	102.83	115.79
Italy (lira)	26,005	26,995	28,443	67,608	70,181	73,946
Japan (yen)	2,843	2,949	3,632	7,391	7,666	9,444
Netherlands (guilder)	42.62	44.32	50.31	110.79	115.21	130.80
South Africa (rand)	42.79	39.79	28.71	111.23	103.45	74.64
Spain (peseta)	2,428	2,505	2,549	6,311	6,514	6,628
Sweden (krona)	122.68	125.00	128.52	318.95	324.97	334.13
Switzerland (franc)	30.99	32.75	37.32	80.56	85.14	97.03
UK (pound)	11.23	11.52	11.27	29.20	29.94	29.31
US (dollar)	17.20	17.15	14.60	44.72	44.59	37.96

[1]Calculated using currency exchange rates published in the *Wall Street Journal* on June 30, 1986.

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CURRENT MARKET DATA

CONVERSION VALUE EXPRESSED IN SELECTED PRODUCER & CONSUMER CURRENCIES[1]

Country (currency)	per lb. U as UF_6			per kg. U as UF_6		
	This Month (Jun 30, 1986)	Last Month (May 31, 1986)	12 Months Ago (Jun 30, 1985)	This Month (Jun 30, 1986)	Last Month (May 31, 1986)	12 Months Ago (Jun 30, 1985)
Australia (dollar)	2.68	2.50	2.40	5.92	5.52	5.29
Belgium (comm. franc)	81.01	84.31	98.34	178.59	185.87	216.80
Canada (dollar)	2.50	2.48	2.18	5.51	5.46	4.81
Finland (markka)	9.23	9.49	10.15	20.34	20.92	22.37
France (franc)	12.63	13.22	14.87	27.85	29.14	32.78
FRG (mark)	3.96	4.15	4.88	8.74	9.15	10.76
Italy (lira)	2,721	2,833	3,117	6,000	6,246	6,871
Japan (yen)	297.52	309.49	398.11	655.92	682.31	877.68
Netherlands (guilder)	4.46	4.65	5.51	9.83	10.25	12.16
South Africa (rand)	4.48	4.18	3.15	9.87	9.21	6.94
Spain (peseta)	254.06	262.97	279.43	560.10	579.74	616.03
Sweden (krona)	12.84	13.12	14.08	28.30	28.92	31.05
Switzerland (franc)	3.24	3.44	4.09	7.15	7.58	9.02
UK (pound)	1.18	1.21	1.24	2.59	2.67	2.72
US (dollar)	1.80	1.80	1.60	3.97	3.97	3.53

SWU VALUE AND UF_6 VALUE EXPRESSED IN SELECTED PRODUCER & CONSUMER CURRENCIES[1]

Country (currency)	SWU Value delivery within one year (Jun 30, 1986)	UF_6 Value per kg.U in UF_6 This Month (Jun 30, 1986)	UF_6 Value per kg.U in UF_6 Last Month (May 31, 1986)
Australia (dollar)	116.33	71.96	67.11
Belgium (comm. franc)	3,510	2,171	2,260
Canada (dollar)	108.29	66.99	66.44
Finland (markka)	399.80	247.31	254.35
France (franc)	547.37	338.60	354.26
FRG (mark)	171.73	106.23	111.28
Italy (lira)	117,932	72,951	75,948
Japan (yen)	12,893	7,975	8,296
Netherlands (guilder)	193.26	119.55	124.68
South Africa (rand)	194.03	120.02	111.95
Spain (peseta)	11,009	6,810	7,049
Sweden (krona)	556.35	344.15	351.68
Switzerland (franc)	140.52	86.92	92.13
UK (pound)	50.93	31.51	32.40
US (dollar)	78.00	48.25	48.25

[1]Calculated using currency exchange rates published in the *Wall Street Journal* on June 30, 1986.

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RECENT TRANSACTIONS[1]

Uranium Sales

Nuexco Transaction Number	Delivery Period	Approximate Quantity (thousands of pounds, U_3O_8 equivalent)	Approximate Price as Percent of Current Exchange or UF_6 Value	Seller	Buyer	Remarks
3753	1986	101-300	105	Producer	Utility	UF_6.
3751	1986	101-300	104	Trader	Utility	UF_6.
3750	1986	101-300	101	Producer	Trader	UF_6.
3746	1986	50-100	103	Trader	Utility	UF_6.

Enrichment Services
Secondary Market Sales

Nuexco Transaction Number	Delivery Period	Approximate Quantity[2] (thousands of SWUs)	Approximate Price[3] as Percent of Current SWU Value[4]	Seller	Buyer	SWU Origin	Remarks
3755	1986	101-300	96	Trader	Utility	DOE	

[1]Transactions listed are not limited to those in which Nuexco was involved, but also include others of which Nuexco is aware.
[2]If tails assay is unknown or unspecified, Nuexco's calculation of SWU quantity assumes 0.20 w/o tails assay.
[3]Price is not normalized to 0.20% tails assay.
[4]Refers to SWU Value that corresponds to SWUs included in transaction. When prices and SWU values are expressed as discounts (e.g. X dollars less than DOE's USEC base price at time of delivery), the percentage refers to the ratio of the *discounts*, not the ratio of the prices.
[5]The notation *R* means that Nuexco either does not know, or that Nuexco has restricted that information to protect client confidentiality.

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CURRENT MARKET DATA

URANIUM SUPPLY
(June 30, 1986)

Nuexco Project Number	Delivery Period[1] (Thousands of Pounds U_3O_8) Spot or Near-term[2]	Intermediate or Long-term	Remarks
Available for Sale:			
ACTIVE			
2335	400	—	
2740	100	—	
2764*	260	—	UF_6
2765*	260	—	UF_6
2777	500	—	
2826*	190	—	UF_6
2889*	100	—	
2967*	100	—	
2989	40	—	
3010*	400	300 per year	
3023*	500	500	UF_6
3121	1,200	—	
2263	—	400 per year	1987 on
2625	—	500 per year	1987 on
2781	—	250 per year	1988-95
2927	—	220 per year	1987-90
TOTAL	4,050		
INACTIVE			
2297	200	200 per year	1988-89
2336	250	250 per year	1987-94
2389	75	75 per year	1987-90
2703	750	—	
2810*	195	175	UF_6
2813	30	—	
2853	65	—	
TOTAL:	1,565		

*New or revised since last month.
[1]Measured from the date of this Report.
[2]For delivery within one year. This category excludes material deliverable within one year under other than spot or near-term contracts.
Projects removed since last month: 2871, 2933.

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URANIUM DEMAND
(June 30, 1986)

Nuexco Project Number	Delivery Period[1] (Thousands of Pounds U_3O_8) Spot or Near-term[2]	Intermediate or long-term	Remarks
Inquiries to Purchase:			
ACTIVE			
2681	500	500 per year	UF_6 or U_3O_8; 1988
2733*	500	—	
2782*	600	700	1988
2928*	450	—	
2738	—	1,000	1989-on
2760	—	750 per year	1987-90
TOTAL:	2,050		
INACTIVE			
2661	250	250 per year	1986-87
2784	100	—	
2798	70	—	
2857*	—	300	1988-95
TOTAL:	420		

*New or revised since last month.
[1]Measured from the date of this Report.
[2]For delivery within one year. This category excludes material deliverable within one year under other than spot or near-term contracts.
Projects removed since last month: 2217, 2507, 2839, 2845, 2850, 2943.

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CURRENT MARKET DATA

LOAN SUPPLY AND DEMAND
(June 30, 1986)

Nuexco Project Number	Delivery Period[1] (Thousands of Pounds U_3O_8) Within 1 Year	Beyond 1 Year	Remarks
Available for Loan:			
INACTIVE			
1938	2,000	—	UF_6
2036	500	—	
2667	800	—	
2920	2,000	—	
TOTAL:	5,300		

*New or revised since last month.
[1]Measured from the date of this Report.
Projects removed since last month: None.

No inquiries to borrow are reported this month.

CONVERSION SUPPLY AND DEMAND
(June 30, 1986)

Nuexco Project Number	Delivery Period[1] (Thousands of Pounds U as UF_6) Within 3 Years	Beyond 3 Years	Remarks
Available for Sale:			
ACTIVE			
2849	550	500	1987-90
2859	750	750	
2988	400	500	
TOTAL:	1,700		
Inquiries to Purchase:			
ACTIVE			
2833	400	—	
2974	165	—	
TOTAL:	565		

*New or revised since last month.
[1]Measured from the date of this Report.
Projects removed since last month: None.

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SWU SUPPLY AND DEMAND
(June 30, 1986)

Nuexco Project Number	Delivery Period[1] (Thousands of SWUs) Spot or Near-term[2]	Intermediate or Long-term	Remarks
Available for Sale:			
ACTIVE			
2571	—	55	1987
2855*	250	—	
2873	40	—	
2914	15	—	
2953	200	—	
TOTAL:	505		
INACTIVE			
2410A	340	—	
TOTAL:	340		
Inquiries to Purchase:			
ACTIVE			
2879	250	—	
TOTAL:	250		
INACTIVE			
2878	10	—	
TOTAL:	10		

*New or revised since last month.
[1]Measured from the date of this Report.
[2]For delivery within one year. This category excludes SWUs deliverable within one year under other than spot or near-term contracts.
Projects removed since last month: None.

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ESSAY

HISTORY OF URANIUM IMPORT LIMITATIONS IN THE USA

The Atomic Energy Act [Section 161(v)] provides that enrichment of non-US origin uranium for use in US facilities shall be limited so "as to assure the maintenance of a viable domestic industry." Prior to 1974, on the basis of military and national security requirements, this language was interpreted by the US Atomic Energy Commission (AEC) as prohibiting *any* enrichment of non-US origin material for domestic end use. However, on November 27, 1973, the AEC published in the Federal Register notice of its intent to relax and eventually eliminate this prohibition in the manner illustrated in the following table:

Calendar Year	Percentage of Customer's Feed Which May Be of Non-US Origin
1977	10
1978	15
1979	20
1980	30
1981	40
1982	60
1983	80
1984 and beyond	100

This proposal was not finally adopted until October 25, 1974. The AEC, to insure a viable domestic uranium production industry, announced that it would monitor US utility purchases of non-US origin material with a view toward preventing domestic overdependence on foreign sources of supply. AEC considered the possibility of reimposing any partial or total embargo as remote, and the utilities were assured that if such a reimposition was deemed necessary, it would not affect agreements entered into prior to a reimposition.

The AEC's decision in 1974 to phase out the embargo was based on the prevailing perception that the rate of nuclear generating growth and associated uranium demand was capable of supporting a thriving domestic uranium industry, as well as absorbing a considerable volume of imported material. In 1974, most sources estimated US uranium requirements for 1985 to be nearly 100 million pounds U_3O_8. Actual US requirements for 1985 amounted to only about 30 million pounds.

From 1974 until 1979, few complaints were voiced about the US policies regarding uranium imports. However, in late 1979, following the Three Mile Island accident and the onset of a number of nuclear plant cancellations, uranium prices began to drop. The price fell sharply throughout 1980 in the wake of massive inventory liquidations. In the fall of 1980, Senator Pete Domenici (R, New Mexico) introduced legislation designed to amend DOE's 1981 appropriations bill to limit US utility use of non-US origin uranium. The attempt failed, but Domenici tried again in 1982, proposing that not more than 20 percent of the uranium used in US reactors could be of non-US origin. However, neither that 20 percent limit nor a proposed compromise limit of 37.5 percent gained enough Congressional support to become law.

In 1983, Congress passed legislation that provided for studies, reports, and a framework for action in the event uranium imports exceeded or were expected to exceed 37.5 percent in any two consecutive years. While most US producers regarded this legislation to be a victory at the time, it ultimately provided them little relief. Principally because of the Reagan administration's emphasis on free trade and reluctance to support embargo initiatives of any type, the legislation had little influence on US uranium import policies.

DOE's promulgation of the USEC in 1984 was in essence the final defeat for many US producers. As a requirements-type contract, the USEC reduced and deferred uranium demand that had been locked in under the Adjustable Fixed-Commitment contract (AFC), the previous form of DOE enrichment contract. Moreover, the USEC included a surcharge for specifying tails assays higher than 0.20 percent U_{235}, making the use of higher tails assays (requiring more uranium and less SWU) more expensive. Finally, as a consequence of individual negotiations with DOE, a number of US utilities obtained the right to use existing inventories of enriched product, further delaying the need for new uranium supplies.

During 1984, it appears that DOE was preoccupied with developing enrichment policies to protect its market share, which was threatened by foreign enrichment suppliers and an active secondary market for enrichment services. Despite a series of meetings with DOE during 1984 and the threat of a lawsuit, over which DOE publicly expressed little concern, US producers were unable to obtain any relief satisfactory to them. Finally, three producers filed the five-count lawsuit in December 1984.

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US URANIUM PRODUCTION SITUATION

Introduction

Uranium production in the USA has declined sharply in the last five years, from a level of almost 44 million pounds U_3O_8 in 1980 to only 11 million pounds in 1985, a decrease of 75 percent. That downward trend may be reversed in 1986. Despite the fact that the number of active US producers has declined since January, Nuexco expects 1986 US production to exceed the 1985 level by two to three million pounds U_3O_8. Production in 1987 may again decrease if projected production cuts are implemented. The decreasing trend in production reflects well-known circumstances affecting the domestic industry. Generally, US producers are faced with high operating costs, low-grade ores, low concentrate prices, limited long-term market opportunities, strong foreign competition, and the uncertainties of site reclamation. Under free-market conditions, near-term relief from any one of those circumstances would be unlikely; relief from the combination of unfavorable conditions would be virtually impossible. In short, most US producers exist in an environment that is unfavorable to mining and processing uranium and is likely to remain so, absent government assistance.

Nevertheless, many producers have maintained standby status for specific projects, ready to resume operations under more favorable marketing conditions; other companies are exploring for new ore deposits or filing for permits required to start new mining operations. However, economics will be the final determinant of project success in the US industry as long as free-market conditions prevail.

As a result of the recent judicial ruling or a possible legislative or procedural mandate, US utilities might eventually be required to purchase additional domestic uranium. At present, that is far from certain. Most US producers undoubtedly will respond to such opportunities, but many may not be able to do so in a short period of time. It could take several years for those producers to reestablish their positions as reliable suppliers.

Conventional Producers

Five conventional projects were in operation as of June 1986. Three of those had also been in operation in 1985 — Pathfinder Mines Corporation's mine and mill at Shirley Basin, Wyoming, Rio Algom Corporation's mine and mill at La Sal, Utah and the UMETCO/Energy Fuels mill at Blanding, Utah. Pathfinder and Rio Algom have been operating continuously for the past few years, milling ore from mines adjacent to their processing plants. Rio Algom recently began bolstering its ore supply with ore purchased from six independent miners operating near the La Sal mill.

The UMETCO/Energy Fuels Nuclear mill was restarted in October 1985 in order to process ore from three mines operated by Energy Fuels in the Arizona Strip district; Energy Fuels is also buying custom ore from some independent miners. The company estimates U_3O_8 production for 1986 will exceed five million pounds U_3O_8, and that is the chief reason that total US production for 1986 should surpass the 1985 level.

Cotter Corporation's mill at Cañon City, Colorado, restarted in February 1986, and Chevron Resources Company's mill at Hobson, Texas restarted in May. Cotter is currently processing stockpiled ore from the Schwartzwalder mine near Golden, Colorado. The mill is operating at an approximate rate of 400 tons per day (about one-third of rated capacity) during each work period. Cotter has no immediate plans to resume mining its sandstone resources in the Uravan district of western Colorado.

When Chevron restarted the Hobson mill, following an 11-month closure, it began transporting ore 960 miles by rail from the Mount Taylor mine near Grants, New Mexico to supply the mill. (Mining of the Panna Maria deposits ceased in early 1985.) Ore from Mount Taylor averages about 0.48 percent U_3O_8 and requires longer leach time than Panna Maria ores; thus, the milling rate is presently about 400 tons per day. (Nominal mill capacity is 2,000 tons per day.)

Chevron recently acquired an option on the Rhode Ranch deposit, located about 75 miles southwest of Hobson, Texas. The deposit has estimated reserves of 6.5 million pounds that could be mined at a grade of about 0.25 percent. The ore is only 30 to 100 feet below the surface, so the deposit would be mined using open-pit methods. If Chevron decides to proceed with the Rhode Ranch project, the proximity of the Hobson mill will facilitate ore processing.

In the USA, the continued availability of uranium extracted by conventional mining processes is somewhat uncertain. Two mills presently operating may not be operating next year. The Rio Algom project is scheduled for closure in September or October 1986. The project represents the last stable source of uranium production in the Moab/La Sal area of Utah. The Rio Algom closure will undoubtedly hinder efforts to revive the local industry in the event of a strengthening of the domestic industry.

The UMETCO/Energy Fuels mill is tentatively scheduled to close in the second quarter of 1987. Stockpiled ore from mines in the Arizona Strip will be depleted at that time. New stockpiles will be built up to about 80,000 tons before another milling phase is considered. Energy Fuels may have three new mines operating in the Arizona Strip district when the mill reopens (the Pine Nut and Kanab North deposits have received mining permits, and the Canyon deposit is in the process of acquiring permits.) If both the Rio Algom mill and the UMETCO/Energy Fuels mill close by early next year, there will be no processing

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plants operating in the Uravan Mineral Belt for the first time since 1950.

The Cotter mill may operate only during the warm weather months throughout 1987. The length of operation probably will depend on the rate that the Schwartzwalder ore is stockpiled and the uranium fuel requirements of Commonwealth Edison Company, its parent company. The mill can operate six or seven months of the year by using Schwartzwalder ore to produce 600,000 to 700,000 pounds U_3O_8. In the event Commonwealth Edison's requirements exceed that amount, they will have the option of buying uranium in the market or renewing mining in the Uravan district to augment the Schwartzwalder ore supply. The latter option is unlikely without a significant increase in the price of uranium.

The renovation of pathfinder's Lucky Mc mill in Gas Hills, Wyoming, underway since March 1985, is scheduled for completion at the end of 1986. It is being modernized to handle additional ore from the Lucky Mc open pit, as well as ore from adjacent deposits that may be developed in the future. The mill has a daily capacity of 2,500 tons; it probably will operate at about half that capacity depending on the availability of new market opportunities.

The five conventional mills currently operating have a combined daily capacity of 8,250 tons ore; however, they are operating at only about half that capacity, producing slightly more than five million pounds in 1985. In the event of a sharp increase in the demand for US-origin natural uranium, the five mills could rapidly increase production by as much as 75 percent, to approximately nine million pounds annually. The increase in market price required to induce such a production increase varies from project to project. Generally, producers would have to be assured of obtaining contract prices in the range of at least $23 to $25 per pound U_3O_8 in order to stimulate near-capacity production rates. (In general, US output from conventional sources is often delivered under old contract prices which are considerably higher than those contained in present-day contracts. Certain high-priced contracts extend into the mid-1990s.)

There are perhaps two other mills not currently operating that might start producing if the owners were assured of obtaining contract prices of $23 to $25 per pound. The two mills represent an annual production potential of nearly three million pounds U_3O_8. In addition, there are at least three additional mills that may be restarted if contract prices increased to the $26 to $29 per pound level. They would add a maximum daily capacity of about three thousand tons ore, and approximately two million pounds to annual production. In the unlikely event that contract prices rose to $30 per pound or more in the intermediate term, three more mills might be restarted. Their combined capacity could result in additional production of about six to seven million pounds U_3O_8 per year. However, during the time required to make the decision and resume a reasonable production level, a process that could take up to two years, many of the favorable conditions that existed in the industry may have changed.

The above possibilities are purely speculative. New production can only be justified if suitable ore reserves, in terms of uranium content, quantity and accessibility, are available. Generally, US mill head grades have averaged 0.11 percent annually since 1979. Thus, the average grade of undeveloped reserves must be considerably higher to be mined in the present environment. In addition, securing long-term delivery contracts is vital to pre-startup planning. It is unlikely that many companies would consider expanding or restarting without one or more long-term contracts secured. Each project is also challenged by new operating regulations and conditions for site reclamation. For these reasons, some companies involved in conventional projects may choose not to participate in another surge in development activity even if prices rise substantially.

Non-Conventional Producers

Solution Mining — The South Texas district remains the most active area for solution mining, or in-situ leach mining (ISL). At present only five production centers are operating, half as many as in 1982. Everest Minerals Corporation is producing 500,000 pounds annually at the Mt. Lucas property in southern Live Oak County; the Hobson and Los Palmas projects are in restoration. The US Steel/Niagara Mohawk Clay West property located at George West is expected to produce approximately 560,000 pounds in 1986; US Steel's adjacent Burns Ranch property is in restoration and may produce about 30,000 pounds this year. Mobil might produce about 250,000 to 300,000 pounds from now to the end of 1986 at its El Mesquite property near Bruni. Intercontinental Energy Corporation is starting production at the Lamprecht property in central Live Oak County. Output is estimated at 35,000 to 50,000 pounds in 1986, increasing to 100,000 pounds in 1987.

The solution mining activity at Crow Butte, Nebraska is proceeding. Ferret Exploration Company has assumed full control of the project and is ready to start the 100 gallon-per-minute ISL pilot plant for the initial field test. The demonstration leach/restoration project will be complete in approximately 18 months. Successful test results should lead to commercial production, but the schedule is indefinite.

Other important pre-production ISL test work is in progress by Everest Minerals Corporation on the Highland property in the south Powder River Basin of Wyoming. Everest anticipates beginning commercial production by late 1987. Also in the Powder River Basin, Malapai Resources is preparing for initial pilot testing of the Willow Creek deposit on the Christensen

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Ranch property. Malapai has tentatively scheduled commercial production for late 1987 or early 1988. Recently, the only active production in the Powder River Basin was at the Bill Smith mine, where Kerr McGee produced about 165,000 pounds from mine water and an ISL test area.

Seven companies produced approximately 2.2 million pounds U_3O_8 by solution mining in 1985. Of that total, at least 225,000 pounds were produced from mine water in the Ambrosia Lake district of New Mexico. Total production by solution methods will decline about 250,000 pounds in 1986 due primarily to decreasing production at Clay West. A significant increase in ISL production is not expected until the end of 1987. Because solution mining is generally less capital intensive and offers environmental advantages over conventional mining, solution mining projects are gaining favor, especially among small companies. The new solution mines under consideration could increase ISL production to four or five million pounds by the end of 1988.

By-Product Operations — Most by-product uranium comes from phosphoric acid. Three such operations produced three million pounds U_3O_8 in 1985. International Minerals & Chemical Corporation (IMC) produced 1.8 million pounds at Bartow, Plant City and New Wales, Florida. Freeport Uranium Recovery Company produced 1.1 million pounds at plants located in Sunshine Bridge and Uncle Sam, Louisiana. That total is likely to remain fairly constant through 1986 and 1987 because much of the output is sold under long-term delivery contracts.

The joint venture of Earth Sciences Resources Ltd. and Urangesellschaft mbH (UG) produced 120,000 pounds from phosphoric acid operations. The phosphate rock is mined in Idaho and processed at an acid plant near Calgary, Alberta, Canada. All output is delivered to UG.

Heap leach production is considered a by-product recovery method. The project at Bingham Canyon, Utah is the only project of its kind in the USA. Wyoming Mineral Corporation has contracted to recover uranium from solutions passed through the waste dumps. Approximately 60,000 pounds were produced in 1985, but the plant has been closed since mid-1985. Additional production by heap leaching is not likely to occur under present industry circumstances.

Conclusions

If necessary, active conventional and solution mining operations could increase output in a short time to meet a modest increase in demand of about four million pounds over 1985 production. New activity in solution mining projects, which are usually less capital intensive than conventional projects, may surpass increases at conventional operations. Some conventional producers may also turn to lower-cost solution mining (extraction from natural or induced mine water) to increase output. An extensive effort (operation at design capacity) could produce up to seven million pounds more. Thus, under present conditions and without significant expansion, the US uranium industry could supply approximately 18 million pounds U_3O_8 annually. Nevertheless, the important consideration is the fact that contract prices must exceed production costs before operations that are currently shut down will resume production. It remains to be seen whether political events will create significant additional demand for US uranium.

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BASIC CONSIDERATIONS

Figure 1

MAP OF U.S. NUCLEAR POWER STATIONS AND ACTIVE URANIUM PRODUCTION SITES

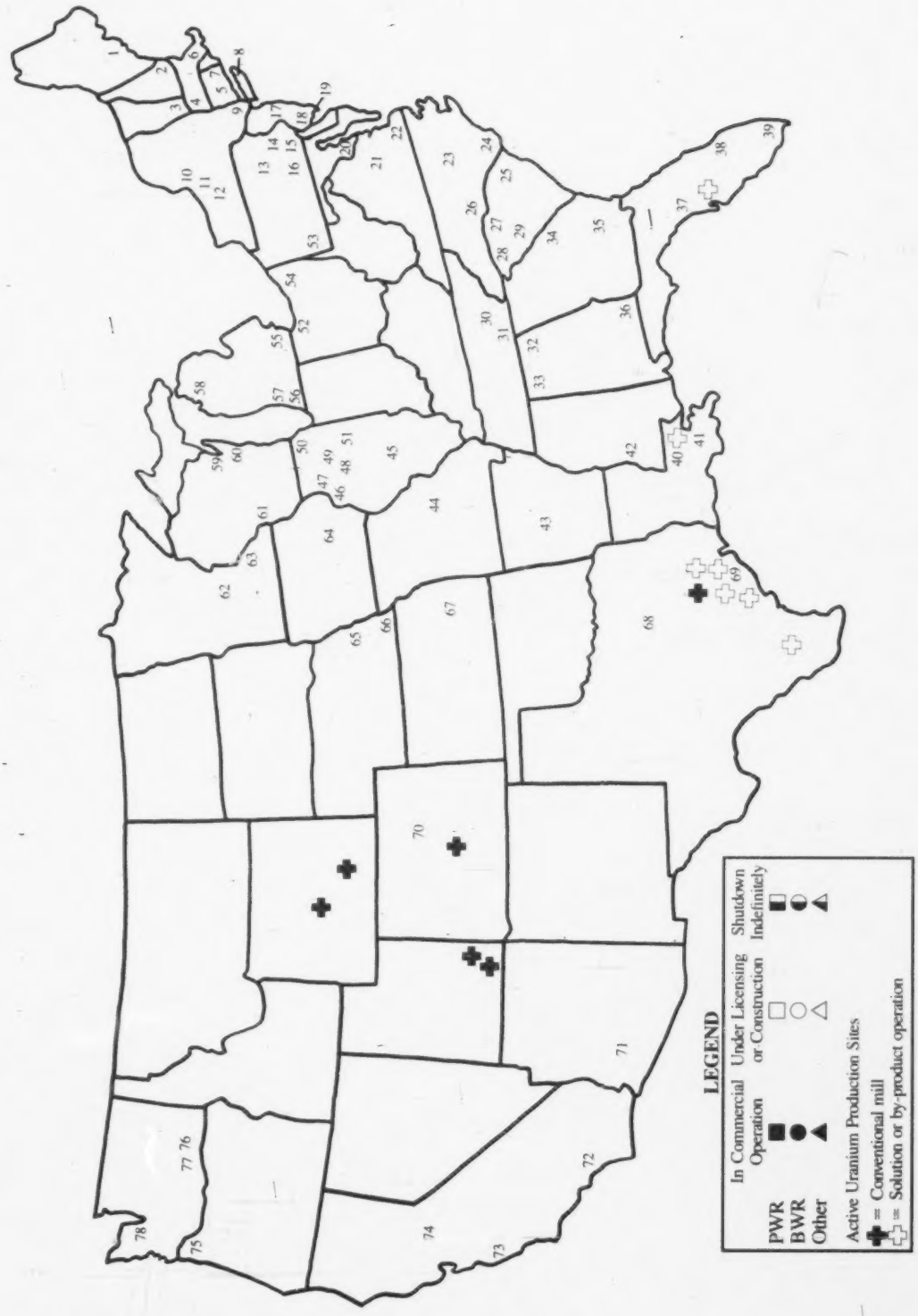

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Table 2
COMMERCIAL NUCLEAR POWER STATIONS IN THE USA

Fuel Buyer	Station	Units
1. Yankee Atomic Group (1)	Maine Yankee	■
2. Yankee Atomic Group (1)	Seabrook	□□
3. Yankee Atomic Group (1)	Vermont Yankee	●
4. Yankee Atomic Group (1)	Yankee Rowe	■
5. Yankee Atomic Group (1)	Haddam Neck	■
6. Boston Edison Co.	Pilgrim	●
7. Northeast Utilities	Millstone	●■□
8. Long Island Lighting Co.	Shoreham	○
9. Consolidated Edison Co. New York	Indian Point 2	■
New York Power Authority	Indian Point 3	■
10. New York Power Authority	James A. Fitzpatrick	●
11. Niagara Mohawk Power Corp.	Nine Mile Point	●○
12. Rochester Gas and Electric Corp.	Robert E. Ginna	■
13. Pennsylvania Power and Light Co.	Susquehanna	●●
14. Philadelphia Electric Co.	Limerick	●○
15. Philadelphia Electric Co.	Peach Bottom	●●
16. GPU Nuclear Corp.	Three Mile Island	■◧
17. GPU Nuclear Corp.	Oyster Creek	●
18. Public Service Electric and Gas	Salem	■■
19. Public Service Electric and Gas	Hope Creek	○
20. Baltimore Gas and Electric Co.	Calvert Cliffs	■■
21. Virginia Electric Power Co.	North Anna	■■
22. Virginia Electric Power Co.	Surry	■■
23. Carolina Power and Light Co.	Shearon Harris	□
24. Carolina Power and Light Co.	Brunswick	●●
25. Carolina Power and Light Co.	H.B. Robinson	■
26. Duke Power Co.	William McGuire	■■
27. Duke Power Co.	Catawba	■□
28. Duke Power Co.	Oconee	■■■
29. South Carolina Electric and Gas	Summer	■
30. Tennessee Valley Authority	Sequoyah	◧◧
31. Tennessee Valley Authority	Watts Bar	□□
32. Tennessee Valley Authority	Bellefonte	□□
33. Tennessee Valley Authority	Browns Ferry	◐◐◐
34. Southern Company Services	Alvin W. Vogtle	□□
35. Southern Company Services	Edwin I. Hatch	●●
36. Southern Company Services	Joseph M. Farley	■■
37. Florida Power Corp.	Crystal River	■
38. Florida Power and Light Co.	St. Lucie	■■
39. Florida Power and Light Co.	Turkey Point	■■
40. Gulf States Utilities Co.	River Bend	○
41. Middle South Utilities	Waterford	■
42. Middle South Utilities	Grand Gulf	●○
43. Middle South Utilities	Arkansas Nuclear	■■
44. Union Electric Co.	Callaway	■
45. Illinois Power Co.	Clinton	○
46. Commonwealth Edison Co.	Quad Cities	●●
47. Commonwealth Edison Co.	Byron	■□
48. Commonwealth Edison Co.	La Salle	●●
49. Commonwealth Edison Co.	Dresden	●●
50. Commonwealth Edison Co.	Zion	■■
51. Commonwealth Edison Co.	Braidwood	□□
52. CAPCO (2)	Davis-Besse	■
53. CAPCO (2)	Beaver Valley	■□
54. CAPCO (2)	Perry	○○
55. Detroit Edison Co.	Fermi	○
56. American Electric Power Co.	Cook	■■
57. Consumers Power Co.	Palisades	■
58. Consumers Power Co.	Big Rock Point	●
59. Wisconsin Public Service Corp.	Kewaunee	■
60. Wisconsin Electric Power Co.	Point Beach	■■
61. Dairyland Power Cooperative	La Crosse	●
62. Northern States Power Co.	Monticello	●
63. Northern States Power Co.	Prairie Island	■■
64. Iowa Electric Light and Power Co.	Duane Arnold	●
65. Omaha Public Power District	Fort Calhoun	■
66. Nebraska Public Power District	Cooper	●
67. Kansas Gas and Electric Co.	Wolf Creek	■
68. Texas Utilities Electric Co.	Comanche Peak	□□
69. Houston Lighting and Power Co.	South Texas Project	□□
70. Public Service Co. of Colorado	Fort St. Vrain	▲
71. Arizona Public Service Co.	Palo Verde	■□□
72. Southern California Edison Co.	San Onofre	■■■
73. Pacific Gas and Electric Co.	Diablo Canyon	■■
74. Sacramento Municipal Utility District	Rancho Seco	■
75. Portland General Electric Co.	Trojan	■
76. U.S. Department of Energy	Hanford	▲
77. WPPSS	WNP 1 and 2	●□
78. WPPSS	WNP 3	□

(1) Consists of Maine Yankee Atomic Power Company, Vermont Yankee Nuclear Power Corporation, Public Service Company of New Hampshire, Yankee Atomic Electric Company.

(2) CAPCO = Central Area Power Coordinating Group

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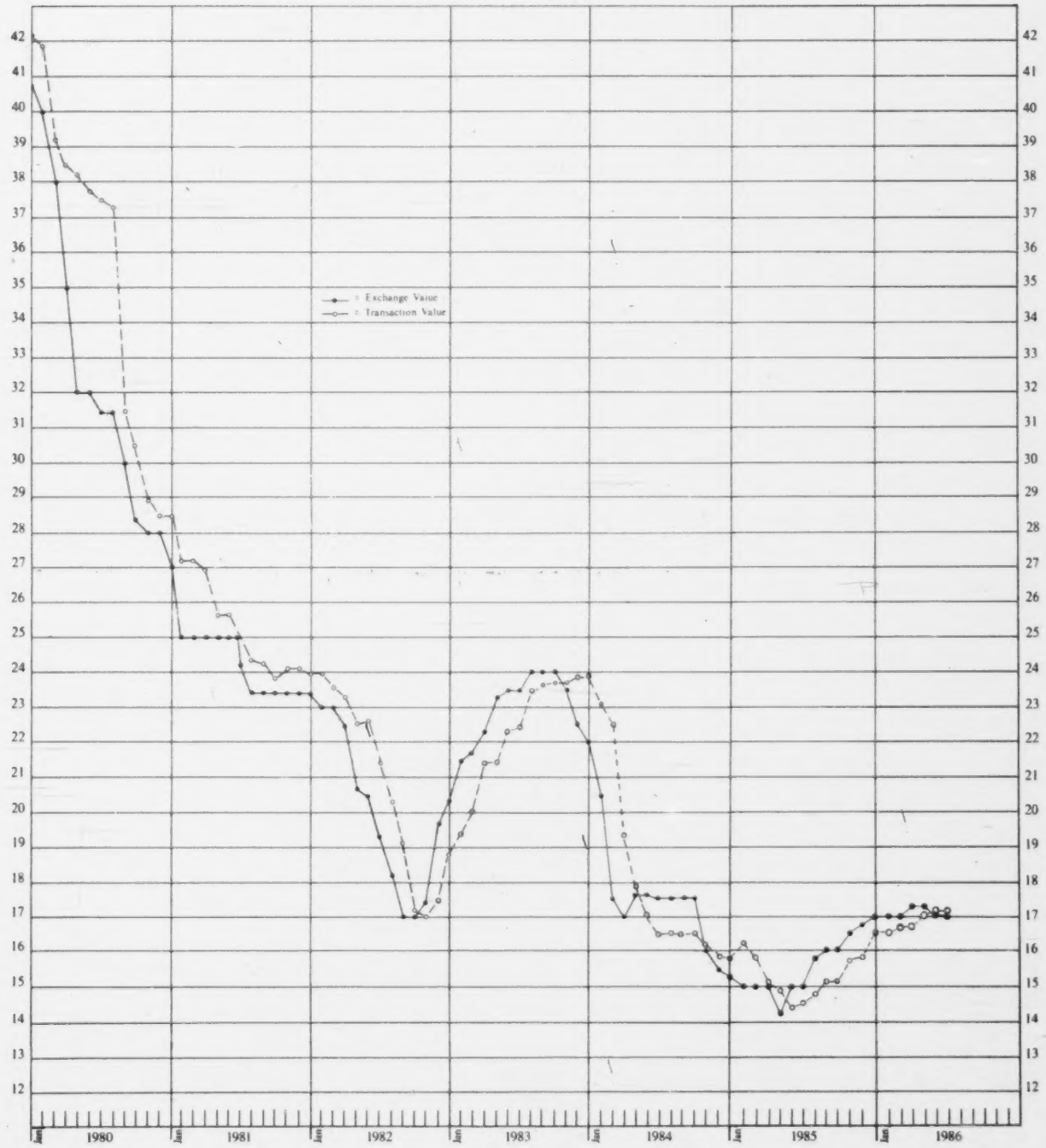
HISTORICAL MARKET DATA

EXCHANGE AND TRANSACTION VALUES
SINCE JANUARY 1980
Determined as of the last day of the month indicated



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HISTORICAL EXCHANGE VALUES

Determined as of the last day of the month indicated (US Dollars/lb. U_3O_8)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1968	—	—	—	—	—	—	—	6.35	6.35	6.40	6.45	6.50
1969	—	6.35	6.10	6.10	6.25	6.25	6.20	6.20	6.15	6.15	6.15	6.20
1970	6.30	6.30	6.30	6.30	6.30	6.30	6.30	6.20	6.15	6.15	6.15	6.15
1971	6.20	6.20	6.20	6.20	6.15	6.05	6.00	5.95	5.95	5.95	5.95	5.95
1972	5.95	5.95	5.95	5.95	5.95	5.95	5.95	5.95	5.95	5.95	5.95	5.95
1973	5.95	6.00	6.10	6.20	6.45	6.50	6.50	6.50	6.50	6.50	6.75	7.00
1974	7.70	7.90	8.00	9.00	9.50	10.50	11.50	12.00	12.50	14.00	14.75	15.00
1975	16.00	16.00	18.00	20.00	21.00	23.00	24.70	26.00	26.00	28.50	30.00	35.00
1976	32.50	37.00	39.25	40.00	40.00	40.00	40.00	40.40	41.00	41.00	41.50	41.00
1977	41.35	41.50	41.60	41.60	42.00	42.25	42.25	42.25	42.40	42.75	43.20	43.20
1978	42.90	43.25	43.25	43.25	43.40	43.40	43.40	43.10	43.25	43.00	43.25	43.25
1979	43.25	43.25	43.25	43.25	43.25	43.00	42.70	42.70	42.20	42.20	41.00	40.75
1980	40.00	38.00	35.00	32.00	32.00	31.50	31.50	30.00	28.50	28.00	28.00	27.00
1981	25.00	25.00	25.00	25.00	25.00	24.25	23.50	23.50	23.50	23.50	23.50	23.50
1982	23.00	23.00	22.50	20.75	20.50	19.25	18.25	17.00	17.00	17.50	19.75	20.25
1983	21.50	21.75	22.25	23.25	23.50	23.50	24.00	24.00	24.00	23.50	22.50	22.00
1984	20.50	17.50	17.00	17.75	17.75	17.50	17.50	17.50	17.50	16.00	15.50	15.25
1985	15.00	15.00	15.00	14.25	15.00	15.00	15.75	16.00	16.00	16.50	16.75	17.00
1986	17.00	17.00	17.25	17.25	17.00	**17.00**						

HISTORICAL TRANSACTION VALUES

Determined as of the last day of the month indicated (US Dollars/lb. U_3O_8)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1976	—	—	—	—	39.60	39.70	39.70	40.40	40.30	40.60	40.70	40.70
1977	41.30	41.30	41.40	41.50	42.80	42.90	43.00	42.60	42.50	42.80	42.90	42.90
1978	43.10	43.30	43.70	43.60	43.60	43.20	43.30	43.40	43.40	43.60	43.40	43.70
1979	43.60	43.80	43.70	43.40	43.60	43.70	43.70	43.60	43.60	43.60	43.50	42.30
1980	42.00	39.30	38.60	38.40	37.90	37.60	37.30	31.60	30.60	29.00	28.70	27.70
1981	27.20	27.20	27.00	25.70	25.70	24.50	24.40	24.30	23.90	24.10	24.10	24.00
1982	24.00	23.70	23.40	22.60	22.70	21.50	20.30	19.10	17.30	17.00	17.55	18.80
1983	19.35	20.00	21.35	21.40	22.35	22.45	23.50	23.60	23.65	23.65	23.85	23.85
1984	23.05	22.50	19.25	17.90	17.00	16.50	16.60	16.40	16.55	16.05	15.90	15.90
1985	16.20	15.70	15.05	14.90	14.45	14.60	14.75	15.10	15.10	15.75	15.80	16.55
1986	16.55	16.70	16.70	17.10	17.15	**17.20**						

HISTORICAL CONVERSION VALUES

Determined as of the last day of the month indicated (US Dollars/lb. U in UF_6)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1981	1.20	1.20	1.20	1.40	1.15	1.15	1.15	1.10	1.10	1.10	1.20	1.20
1982	1.20	1.20	1.20	1.20	1.00	1.00	1.00	0.90	1.10	1.60	1.45	1.45
1983	1.20	1.40	1.40	1.20	1.20	1.20	1.10	1.10	1.00	0.60	0.60	0.60
1984	0.60	0.30	0.80	0.80	0.80	0.00	0.00	0.80	1.00	1.00	0.80	0.80
1985	1.00	1.00	1.00	1.50	1.50	1.60	1.60	1.60	1.60	1.60	1.60	1.60
1986	1.60	1.80	1.80	1.90	1.80	**1.80**						

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GOVERNMENT STATISTICS

AUSTRALIA

	Price Index of Materials Used in Manufacturing Industry — All Groups[1] (1984 = 100)	Award Rates of Pay Indexes Australia — Adult Males In Mining Wage Earners, Weekly Rates[2] (1976 = 100)
1975 Avg.	150.4	132.6
1976 Avg.	168.4	160.9
1977 Avg.	192.0	179.0
1978 Avg.[3 4]	198.5	190.0
1979 Avg.	248.8	127.9
1980 Avg.	321.8	140.8
1981 Avg.	355.3	154.1
1982 Avg.[5]	368.6	174.9
1983 Avg.	401.6	181.8
FY84 Avg.[6]	95.3	—
FY85 Avg.[6]	100.0	—
Jan 1985	97.0	197.8
Feb 1985	98.6	197.8
Mar 1985	102.1	197.8
Apr 1985	104.4	202.8
May 1985	107.6	202.8
Jun 1985	108.7	202.8
Jul 1985	111.1	202.8
Aug 1985	110.5	202.8
Sep 1985	108.9	202.8
Oct 1985	108.7	202.8
Nov 1985	109.6	210.2
Dec 1985	110.2	210.3
Jan 1986	109.8	210.3
Feb 1986	108.9P	210.3
Mar 1986	99.7P	210.3
Apr 1986	—	210.3

P = Preliminary R = Revised since last month

[1]Australian Bureau of Statistics, Canberra: "Price Index of Materials Used in Manufacturing Industry" (Catalogue No. 6411.0). The basis of this index was revised to 1984 = 100. The previous index was 1969 = 100.

[2]Australian Bureau of Statistics, Canberra: "Award Rates of Pay Indexes, Australia" (Catalogue No. 6312.0). Figures for the latest fourteen months shown are subject to revision.

[3]Monthly data for 1970-78 appear on pages 4.7 and 4.8 of Report 138.

[4]Annual averages prior to 1979 reflect index base no longer in use.

[5]Monthly data for 1979-82 appear on page 35 of Report 184.

[6]Annual averages are for financial year ending June 30.

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CANADA

	Industry Selling Price Index: All Commodities[1] (1981 = 100)	Wage-earner Data: Average Hourly Earnings (C$)[2]					
		Uranium Mines (SIC 057)	Metal Mines (SIC 051-059)	Mines, Quarries and Oil Wells[3] (SIC 051-099)	Primary Non-ferrous Metal Industries[4] (SIC 296)	(SIC 298)	Chemicals and Chemical Products[5] (SIC 372-379)
1979 Avg.[6]	217.9	—	9.60	9.66	—	—	7.67
1980 Avg.	247.2	—	10.58	10.80	—	—	8.50
1981 Avg.	288.7	—	12.02	12.23	—	—	9.53
1982 Avg.[7]	288.8	—	13.74	13.92	—	—	10.63
1983 Avg.	298.8	—	—	14.30	—	—	11.17
1984 Avg.	310.9	17.88	—	15.07	12.28	10.49	11.76
Jan 1985	117.5	18.05	16.13	15.60	12.32	10.80	12.04
Feb 1985	117.7	18.78	16.41	15.68	12.52	11.05	12.06
Mar 1985	118.4	18.24	16.21	15.57	12.44	10.97	12.02
Apr 1985	118.3	18.63	16.44	15.80	12.81	11.23	12.04
May 1985	118.6	19.41	16.51	15.63	12.76	11.25	12.15
Jun 1985	118.6	18.49	16.20	15.49	12.89	11.14	12.14
Jul 1985	118.6	18.14	16.27	15.41	12.96	11.17	12.13
Aug 1985	118.4	17.07	16.03	15.30	12.97	11.31	12.19
Sep 1985	118.6	18.53	16.55	15.72	12.95	11.39	12.26
Oct 1985	118.9	18.74	16.51	15.70	13.14	11.53	12.33
Nov 1985	119.1	19.05	16.66	15.88	12.76	11.32	12.49
Dec 1985	119.7	19.07	16.57	16.01	12.51	11.09	12.59
Jan 1986	120.6	18.15	16.22	15.86	13.11	11.48	12.52
Feb 1986	120.5	19.52	16.57	15.99	13.20	11.59	12.45
Mar 1986	120.0	19.04	16.57R	15.99R	13.11R	11.59R	12.54R
Apr 1986	119.7	19.38P	16.65P	15.93P	13.08P	11.59P	12.58P

P = Preliminary R = Revised since last month

[1]Statistics Canada, Prices Division, Ottawa: "Industry Price Indexes" (Catalogue 62-011). Indexes for the most recent six months shown are subject to revision. This category was formerly known as "Manufacturing." Index prior to 1985, 1971 = 100.

[2]Statistics Canada, Labour Division, Employment and Payrolls Section, Ottawa: "Employment, Earnings and Hours" (Catalogue 72-002).

[3]Reports 175 through 185 list this series title incorrectly as "Metal Mining, Including Milling (SIC 050-099)."

[4]Beginning with the April 1983 figure, Primary Metal Industries, non-ferrous is split into SIC 296 and SIC 298.

[5]Chemical and Chemical Products prior to April 1983 was SIC 370-379. The new series is from a new survey which includes all companies and is based on a 1970 classification. The old survey only included companies of 20 employees or more.

[6]Monthly ISPI for 1977 and 1978 appear on page 4.10 of Report 138, and monthly wage-earner data for 1973-78 appear on page 4.11 of Report 138.

[7]Monthly data for 1979-1982 appear on page 37 of Report 184. On that page, the wage earner index entitled "Metal Mining, Including Milling (SIC 050-099)" should read "Total Mining (SIC 051-099)."

[8]Beginning with the March 1983 figure, Wage Earner Data are based on a census of all companies employing 200 or more wage earners, *plus* a random survey of companies employing fewer than 200 wage earners. Prior to March 1983 only companies employing 200 or more wage earners are included in the Wage Earner Data.

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GOVERNMENT STATISTICS

REPUBLIC OF SOUTH AFRICA

		Average Declared Working Costs per Metric Ton of Gold Ore Milled (Rand)[1]	Tonnage-Weighted Index of Average Working Costs per Metric Ton of Gold Ore Milled (March 1982 = 100)[2]	Consumer Price Index[3] (1980 = 100)[4]	Producer Price Index All Groups[5] (1980 = 100)	Total Employment in Mining and Quarrying (Code 35)[6]	Total Salaries and Wages in Mining and Quarrying (1,000 Rand) (Code 40)[6]
1975	Avg.	16.71	—	157.2	100.0	639,473	1,003,617
1976	Avg.	19.30	—	174.7	115.1	671,240	1,212,983
1977	Avg.	23.87	—	194.4	130.0	712,006	1,420,670
1978	Avg.	27.14	—	137.2	142.7	664,571	1,537,169
1979	Avg.[7]	30.18	—	155.3	164.5	692,209	1,830,632
1980	Avg.[8]	35.53	—	176.7	192.1	714,379	2,279,615
1981	Avg.	41.89	—	206.5	218.3	728,506	2,820,505
1982	Avg.[9]	47.25	104.2	233.5	248.7	707,552	3,246,071
1983	Avg.	51.87	115.0	262.2	274.8	696,579	3,644,772
1984	Avg.	58.95	130.3	292.8	297.9	712,080	4,196,764
Jan	1985	—	—	177.1	166.6	711,366	376,777
Feb	1985	—	—	182.8	171.3	727,932	361,823
Mar	1985	64.48	142.4	183.6	173.0	708,809	371,380
Apr	1985	—	—	187.4	174.0	724,187	369,005
May	1985	—	—	189.5	177.7	708,085	373,478
Jun	1985	67.42	148.9	191.9	179.2	724,587	395,543
Jul	1985	—	—	193.6	180.7	738,228	419,106
Aug	1985	—	—	195.6	183.2	734,121	416,777
Sep	1985	70.47	155.3	197.8	184.8	732,836	419,883
Oct	1985	—	—	200.8	188.1	720,071	401,448
Nov	1985	—	—	203.4	196.0	750,049	432,996
Dec	1985	72.43	160.1	207.4	199.4	741,372	425,261
Jan	1986	—	—	213.8	203.6	744,070	449,513R
Feb	1986	—	—	215.8	206.9	754,458R	438,562R
Mar	1986	75.76	167.8	218.3	206.9	760,932R	446,475R
Apr	1986	—	—	222.2	208.9	—	—
May	1986	—	—	222.6	—	—	—

[1]Chamber of Mines of South Africa, Johannesburg; "Analysis of Working Results," published quarterly.

[2]Page 16 of Report 178 contains description and calculation of index, and page 24 of Report 178 lists figures for 1982.

[3]Republic of South Africa Department of Statistics, Pretoria; "Government Gazette: Consumer Price Index for Urban Areas."

[4]The basis for calculation prior to January 1985, 1975 = 100. For annual averages prior to 1978, April 1970 = 100.

[5]Previously known as the Wholesale Price Index, now the Producer Price Index. The computation remains the same. The basis for calculation prior to January 1985, 1975 = 100.

[6]Bulletin of Statistics, Department of Statistics, Pretoria.

[7]Historical data for the Average Declared Working Costs and Consumer Price Index 1970-1979 appear on page 4.9 of Report 140.

[8]Monthly data for Codes 35 and 40, 1977-1980, appear on page 28 of Report 157.

[9]Monthly data for 1979-82 appear on page 39 of Report 184.

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UNITED STATES

	Producer Price Index[1]		Consumer Price Index[2]	GNP Implicit Price Deflator[3,4]	Gross Average Hourly Earnings of Production or Non-supervisory Workers (US$)[5]			
	Industrial Commodities (1967 = 100)	All Commodities (1967 = 100)	(1967 = 100)	(1982 = 100)	Metal Mining (SIC 10)	Primary Non-ferrous Metals (SIC 333)	Chemicals and Allied Products (SIC 28)	Electric and Electronic Equipment (SIC 36)
1980 Avg.[6]	274.8	268.8	246.8	178.64	10.26	10.63	8.30	6.94
1981 Avg.	304.1	293.4	272.4	195.51	11.55	11.98	9.12	7.62
1982 Avg.[7]	312.3	299.3	289.1	207.15	12.33	12.94	9.96	8.21
1983 Avg.	315.8	303.1	298.4	215.63	12.57	13.43	10.59	8.65
1984 Avg.	322.6	310.3	311.1	108.1	13.05	13.43	11.08	9.04
Jan 1985	322.9	309.5	316.1	—	13.29	13.70	11.39	9.33
Feb 1985	322.5	309.2	317.4	—	13.30	13.73	11.39	9.33
Mar 1985	322.6	308.7	318.8	110.4	13.29	13.95	11.37	9.39
Apr 1985	323.8	309.3	320.1	—	13.43	13.63R	11.47R	9.40
May 1985	325.3	309.8	321.3	—	13.24	13.60R	11.44R	9.39
Jun 1985	324.8	309.2	322.3	111.3	13.23	13.68R	11.51R	9.46
Jul 1985	324.4	309.0	322.8	—	13.45	13.83R	11.59R	9.47
Aug 1985	323.7	307.3	323.5	—	13.55	13.71R	11.60R	9.50
Sep 1985	322.3	305.5	324.5	112.1	13.44	13.68R	11.65R	9.54R
Oct 1985	324.2	307.9	325.5	—	13.49	13.66R	11.70R	9.55R
Nov 1985	324.7	309.5	326.6	—	13.49	13.97R	11.80R	9.61
Dec 1985	325.1	310.2	327.4	113.0	13.43	13.81R	11.85R	9.68
Jan 1986	233.8R	308.9R	328.4	—	13.40	13.69R	11.86R	9.60R
Feb 1986	319.4	304.7	327.5	—	13.44	13.82R	11.81R	9.60
Mar 1986	314.0	300.3	326.0	113.7	13.38R	13.93R	11.78R	9.62R
Apr 1986	311.3	297.9	325.3	—	13.50P	13.28P	11.83P	9.61P
May 1986	311.7	299.2	326.3	—	—	—	11.85P	9.63P
Jun 1986	—	—	—	113.8	—	—	—	—

P = Preliminary R = Revised since last month

[1]US Bureau of Labor Statistics, Washington, D.C.: "Producer Prices and Price Indexes," (formerly "Wholesale Prices and Price Indexes"). Producer Price Indexes are revised four months after they are first released to reflect the availability of late reports and corrections by respondents.

[2]US Bureau of Labor Statistics, Washington, D.C.: Consumer Price Index for All Urban Consumers, US City Average, All Items.

[3]US Department of Commerce, Washington, D.C.: Bureau of Economic Analysis, National Income and Wealth Division: "Survey of Current Business." The GNP Implicit Price Deflator is published quarterly, and seasonally adjusted.

[4]The basis for calculation of this index was revised to 1982 = 100. 1984 and 1985 figures have been adjusted to that basis. The basis for calculation prior to 1984, 1972 = 100.

[5]US Bureau of Labor Statistics, Washington, D.C.: "Employment and Earnings." All data based on 1972 revision of SIC Manual. Data for 1970-1976 are adjusted to the March 1977 benchmark. Data for 1977-1978 are adjusted to the March 1979 benchmark. Data for January 1979 and beyond are adjusted to the March 1980 benchmark.

[6]Monthly data 1970-1978 for Producer Price Index-Industrial Commodities, Consumer Price Index, and Employment and Earnings SIC codes 10, 333, and 28, and quarterly data for GNP Implicit Price Deflator appear on pages 4.6-4.8 of Report 139.
Monthly data 1977-1978 for Employment and Earnings SIC Codes 10, 333, and 28 appear on page 33 of Report 147.
Monthly data 1970-1978 for Employment and Earnings SIC Code 36 appear on page 23 of Report 154.
Monthly data 1977-1980 for Producer Price Index-All Commodities, appear on page 21 of Nuexco Report 158.

[7]Monthly data 1979-1982 for all listed indices appear on page 41 of Report 184.

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REPRESENTATIVES AND CONSULTANTS

JAPAN

Kazy Yokota
Japan Tech Services
Ohkura Building (3F)
1-4-10 Shiba Daimon
Minato-ku, Tokyo, Japan
Telephone: (81-3) 431-6031, 6025
Telecopy: (81-3) 434-6674
Telex: 242-5060 (JATECH J)

SOUTH AFRICA

Chris I. Von Christierson
Southern Prospecting (Pty) Limited
P.O. Box 61409
Marshalltown 2107
Republic of South Africa
Street Address:
10th Floor
Eagle Star House
70 Fox Street
Johannesburg 2001
Telephone: (27-11) 838-1868
(27-11) 834-4211
Telecopy: (27-11) 834-3148
Telex: 4-89878 SA

TAIWAN

Edward Bee
Bee & Liang Company, Ltd.
14 FL Universal Business Center
NO. 663, Tun Hwa South Road
P.O. Box 1396
Taipei, Taiwan R.O.C.
Telephone: (886-2) 704-9630
TWX: 785-11570 (BEELIANG)

UNITED STATES

Harold C. Lindberg
83-A Hardee Lane
Whispering Pines, N.C. 28327
Telephone: (919) 949-3622

M. Jerry Reaves
Suite 500
Seven Piedmont Center
Atlanta, Georgia 30305
Telephone: (404) 262-7375

SPECIAL CONSULTANTS

George J. Stathakis
International Investment Banking

James C. C. Stewart
U.K. Nuclear Industry

W. Bryan Webster
International Business Development

J. Robert Wolcott
International Business Development